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Condition of Education
In Connecticut

Elementary and Secondary

Meeting *The Challenge*

1986

State of Connecticut

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Foreword

One of the most significant events in the history of Connecticut public education occurred on June 6, 1986, when the General Assembly passed An Act Concerning Education Enhancement, representing a commitment of approximately 300 million dollars over three years. In doing so, our state's leaders made a bold commitment to ensuring the highest possible quality of teaching for all of Connecticut's students.

This historic action took place near the end of the period documented in this annual report, July 1, 1985-June 30, 1986. Many of the data presented here clearly demonstrate the need for this extraordinary commitment of human and financial resources. Other information shows with equal clarity the strong foundation on which this commitment stands. Connecticut educators can be proud of the many ways in which we are already moving toward our goal of educational excellence and equity for all students. At the same time, we recognize that improvement is still needed if we are to reach that goal.

Another very important event during this period was the culmination of the State Board of Education's efforts to develop a working definition of equal educational opportunity. This policy statement, adopted on May 7, 1986, after several years of discussion and evaluation, asserts that:

> "Equal educational opportunity" means student access to a level and quality of programs and experiences which provide each child with the means to achieve a commonly defined standard of an educated citizen.
>
> This goal will require resource allocations based upon individual student needs and sufficient resources to provide each child with opportunities for developing his or her intellectual abilities and special talents to the fullest.
>
> Evidence of equal educational opportunity is the participation of each student in programs appropriate to his or her needs and the achievement by each of the state's student subpopulations (as defined by such factors as wealth, race, sex or residence) of educational outcomes at least equal to that of the state's student population as a whole.

Supported by policy guidelines on issues ranging from access to funding, this statement provides more than a definition of equal educational opportunity. It provides an operational framework for Department of Education activities directed toward ensuring educational equity for all Connecticut students.

In reporting on the condition of education in Connecticut, this edition of *Meeting the Challenge* includes two new, important chapters. One presents a more complete profile of Connecticut's teachers than we have offered here in the past. The other, "Indicators of Success," provides detailed commentary on how well we are meeting the specific objectives that support each of the Board of Education goals for education in Connecticut.

The indicators of success were developed to provide clear and accurate measures of our progress toward achieving these goals. This report represents our first opportunity to systematically review the indicators, which provide information both for evaluating the condition of education and making decisions for its future. Tables, charts and graphs relating to the indicators are identified in these pages by this small symbol: . In coming years, the indicators of success will continue to provide the focus for reporting on the condition of education in Connecticut.

The State Board of Education's commitment to educational excellence and equity for all students carries with it many implications. Quality educational programs must be made available to all individuals, from young children to adults, whether blessed by special gifts or handicapped by social, physical or financial circumstances. In its discussion of programs planned or already in place, Chapter 4 of this report describes Connecticut's efforts to provide quality opportunities for lifelong learning to all who seek it.

As this report is published, it is clear that education in Connecticut has reached a crossroads. Our citizens have chosen to continue on a demanding, but rewarding, path. The journey that is learning never ends; but for us, the goal is in sight.

Gerald N. Tirozzi
Commissioner of Education

Connecticut: Its People and Its Schools

The challenge to Connecticut for education of its citizens is simply stated: to strive for equity and excellence in the delivery of educational services to the state's diverse populations. Yet, given the variety of educational programs administered by the state and local public school districts, the implications of this challenge are far-reaching. This chapter describes the context within which Connecticut's educational programs function, i.e., the population at large, the economy, the state's schools and students. It highlights specific conditions that have caused the State Board of Education to issue a new series of goals for education in Connecticut for 1986-1990. Responding appropriately and responsibly to existing conditions is the process by which Connecticut is "Meeting the Challenge."

Connecticut's People

Geographically, Connecticut is the third smallest state in the nation; nevertheless, it ranks 27th in total population with 3,174,000 inhabitants. Connecticut's population density, 657 inhabitants per square mile, is fourth highest in the nation.

Within Connecticut the largest concentration of population is in the five major cities—Bridgeport, Hartford, New Haven, Stamford and Waterbury—which account for approximately 20 percent of the state's population. But many rural areas also exist. According to 1984 census estimates, 84 of the 169 towns have a population of 10,000 or less.

State Population Growth

Geographical Area	1980	1985 (est.)	Percentage Change
Danbury	170,369	183,200	7.5
Stamford	198,854	197,300	-0.8
Norwalk	126,692	128,300	1.3
Bridgeport-Milford	438,557	444,100	1.3
Hartford-Bristol-New Britain-Middletown	1,013,508	1,035,000	2.1
New Haven-Meriden	500,462	510,000	1.9
New London-Norwich	250,839	258,800	3.2
Waterbury	204,968	209,700	2.3
Connecticut	3,107,000	3,174,000	2.1

Source: CT State Census Data Center

Connecticut's recent population growth has been most pronounced in the Danbury area, largely because of the location of businesses along the Interstate 84 corridor. From 1980 to 1985, Danbury's growth was 7.5 percent, compared with the state's overall level of growth of 2.1 percent. Connecticut's Office of Policy and Management forecasts other high growth regions to be in the Middletown area and in towns along the lower Connecticut River.

Demographic Changes

During the 1980s the state's population growth has been supported by a significant growth in its economy. This has helped Connecticut to reverse the conditions of the 1970s that caused a flow of people and resources from the northern states to the South and Southwest. From 1980 to 1985, Connecticut's population grew by approximately 67,000 people. This nearly matches the state's growth in population for all of the prior decade—an increase of only 75,000 people between 1970 and 1980, the slowest decennial rate of population increase in the state's history. The Office of Policy and Management is projecting a gain from 1985 to 1990 of another 84,000 people, or 2.6 percent, to reach a total of 3,258,000.

Declining birth rates have been more pronounced in Connecticut than in the nation as a whole. The National Center for Health Statistics estimates that a rate of 2.1 children born to women during their childbearing years would maintain the current population; however, Connecticut's 1980 rate of births was only 1.5. Complementing this statistic, the average age of first marriage has been rising. The fertility rate (as measured by children born per 1,000 women of childbearing age) fell significantly in the early 1970s, and although it has risen slightly since 1980 (see Table), it remains among the lowest in the nation.

Fertility Rates: Children Born Per 1,000 Women of Childbearing Age

Year	Estimated Fertility Rate
1970	81.1
1975	53.8
1980	53.9
1985	56.6

Sources: U.S. Bureau of the Census (1970 and 1980) Connecticut State Health Department (1975 and 1985, estimated)

From 1970 to 1980, the number of households with nonrelated persons grew from 18 percent to 26 percent. Divorce and separation of families have contributed significantly to this increase. Similarly, the number of female, single-parent families increased from ten percent in 1970 to 15 percent in 1980. Or, viewed differently, the proportion of children under the age of 18 living with two parents fell from 90 percent to 81 percent. In 1984, nearly

ten percent of all births was to mothers under the age of 20. Also, in recent years there has been a pronounced increase in women entering the labor force. Approximately 60 percent of all mothers with children under the age of 18 are currently in the work force, which, for this group, is one of the highest labor participation rates in the country.

Other factors have combined with the general changes in family structure to cause the State Board of Education, as one of its five-year goals, to seek to improve and expand early childhood programs. According to current estimates, more than 50,000 children between birth and the age of five are served in some type of early childhood program (see Chapter 4). As many as 90,000 may need services. In 1985, prekindergarten programs financed by local boards of education provided services for 5,910 children, the third highest number on record. Consistent increases through the years have occurred for children placed in nonpublic facilities (see Table), but there actually have been decreases in recent years in the number of prekindergarten children served in public facilities. The increase from 1984 to 1985 coincides with a new emphasis on early childhood education by the State Department of Education. Early intervention for handicapped or at-risk populations is generally recognized to be beneficial, especially for children from birth to five years old and for those from low-income families.

Prekindergarten Enrollment Financed by Local Boards of Education

Year	Children Enrolled in Public Facilities	Children Enrolled in Nonpublic Facilities	Total
1985	3,361	2,549	5,910
1984	3,178	2,375	5,553
1983	3,190	2,406	5,596
1982	3,811	1,954	5,765
1981	3,888	1,747	5,635
1980	4,371	1,601	5,972
1979	4,390	1,517	5,907
1978	3,828	1,581	5,409
1977	3,808	1,272	5,080
1976	3,353	1,042	4,395
1975	3,621	1,769	5,390

Source: CT Department of Education

Generally, Connecticut's population growth has been low relative to the state's more rapid rate of economic expansion. Over the past decade, low birth rates have reduced the youth cohort available for the labor force. Meanwhile, the median age of the population is increasing; it is projected to rise from 32 years in 1980 to 35 years in 1990. Insofar as one important role of education is to help meet the state's economic needs, providing appropriate educational services for all segments of the population is especially important in this environment.

The State Board of Education has designated as one of its goals to improve and expand adult education programs. According to the 1980 census, 30 percent of the state's population over age 25 does not have a high school diploma. Ten percent of adults, or about 300,000, may be functionally illiterate. About 20,000 adults each year take courses in preparation for state-administered General Educational Development (GED) exams. The State Board of Education also serves the vocational rehabilitation and training needs of individuals with disabilities.

Within the youth cohort itself, many special programs are directed to specific needs. Economically disadvantaged students, who number approximately 50,600 (see Table), are served by both state and federal compensatory education programs. Students with limited-English proficiency number more than 10,000, and bilingual education programs to assist many of these students are supported by state-mandated funding. Other programs target the needs of teenage parents and high school dropouts.

Connecticut's Economy

Connecticut's economy is based broadly upon its manufacturing, insurance, finance and service industries. In today's world of high technology, it is a producer of aircraft parts and equipment, instruments, electronic components, office machines, communications equipment and industrial controls. It has been a traditional center for the nation's insurance industry.

Many very favorable statistics serve to characterize Connecticut's economy. According to the Federal Reserve Bank of Boston, the value of Connecticut's production of goods and services, measured on a per capita basis, ranks highest in the nation. If compared with the per capita gross national product of other countries, it also ranks highest in the world. Moreover, Connecticut's per capita income ranks second in the United States, and it is growing at a strong pace of approximately seven percent per year. Between 1982 and 1985, the number of new jobs in the state increased by about 90,000, an increase in employment of about six percent. Typical of trends nationwide, most job growth has occurred in nonmanufacturing industries. The rate of unemployment has been decreasing; as reported by the Connecticut Labor Department, the April 1986 unemployment rate was 3.6 percent, the lowest figure since 1969 and one of the lowest rates in the nation. Connecticut's employment, personal income and hourly earnings are at all-time highs. (See Table for a list of rankings of selected economic variables.)

The recent growth in per capita income is particularly notable. The Connecticut Census Data Center estimates the state's 1983 per capita income, without adjustment for inflation, to be $11,897 compared with $8,511 in 1979, or an increase of 39.8 percent. Fairfield County ranks highest among the state's counties with a 1983 per capita income of $14,665, and Windham County the lowest with $8,746. Eight of the ten highest ranking municipalities are located in Fairfield County. Five of the lowest ten are located in Windham County. More specifically, New Canaan's 1983 per capita income of $28,055 ranked highest in the state and 3.8 times greater than Sterling, the lowest, with a 1983 per capita income of $7,415.

Basic Economic Indicators

Connecticut Ranks:	
1st	in per capita value added by manufacture in machine tools per 1,000 population in per capita industrial research laboratories in the number of engineers per 100 of population
2nd	in per capita personal income
4th	in population density
6th	in percent of personal income derived from manufacturing
7th	in total military prime contract awards in the ratio of manufacturing employees to total non-agricultural employment
12th	in ratio of skilled workers to total workers
16th	in total value added by manufacture
20th	in number of production workers employed
27th	in population
48th	in area

Source: CT Department of Economic Development, 1986

However, if Connecticut's prosperity is outstanding, its areas of less fortunate economic status cannot be ignored. Pockets of disadvantage and poverty exist in the state, especially in the cities. For example, Hartford, New Haven and Bridgeport are all on the list of the top 20 U.S. cities with the highest percent of children living in poverty. Beyond the poverty statistics, local per capita property wealth varies significantly among Connecticut's communities (see Table). These differences are significant with regard to the environment in which children are educated and the policies governing the funding of education.

Property Wealth Per Capita, 1982
Connecticut's Highest and Lowest Towns

Highest		Lowest	
Town	1982 AENGLC*	Town	1982 AENGLC*
New Canaan	$91,840	Norwich	$5,757
Greenwich	90,148	New Haven	5,667
Darien	87,207	Sterling	5,615
Westport	75,579	Griswold	5,595
Weston	62,113	Plainfield	5,512

*AENGLC: Adjusted Equalized Net Grand List Per Capita.

Source: CT Department of Education

Connecticut's economy is supported by a skilled labor force. The recent private study, *Jobs for Connecticut's Future*, projects a 15 percent growth in jobs by 1995. The expansion of jobs is expected to outpace the state's rate of growth in the labor force. The skills required for employment are also changing, as jobs in knowledge-based and service-oriented fields grow more rapidly than in manufacturing industries. Particular skills highlighted in *Jobs for Connecticut's Future* include higher level basic skills (such as language and communications, mathematics and science), interpersonal skills and enhanced motivational (or "learning to learn") skills. Shortages of workers in some job classifications are occurring now, and, according to surveys, shortages are likely to continue.

Within the context of meeting the education and job-training needs of Connecticut's industries, the State Board of Education has set as one of its goals to improve skills for future employment. It is important economically to educate students with appropriate skills and in sufficient numbers to meet the employment needs of the state. To this end, vocational education programs are fully supported in the state's 17 vocational-technical schools and in the local, public, comprehensive high schools. Increased access to these programs by both youth and adults is sought for women, minorities and persons with disabilities. Various programs address the particular needs of groups of students. These include Jobs for Connecticut Youth and the federally funded Job Training Partnership Act (JTPA). To adequately meet the employment needs of the state, a continuum of educational programs at all levels is provided, from basic skills and occupational training to advanced science and engineering programs.

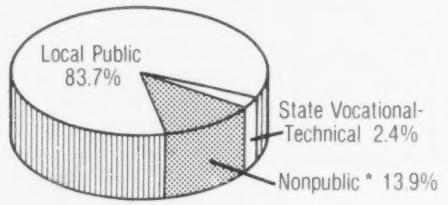
Connecticut's Schools

Public elementary and secondary education in Connecticut is provided primarily by 165 local school districts. Most serve students who live within the town or city boundaries of the district, but 16 are regional and offer programs to students either at the secondary level only or over the complete range of elementary and secondary grades. In addition, three privately endowed academies—the Gilbert School in Winsted, Norwich Free Academy and the Woodstock Academy—serve public high school students regionally, as does the E.O. Smith High School, operated by the University of Connecticut at Storrs. Public school systems in Connecticut are not fiscally autonomous; their budgets are funded and approved as part of the operations of their local municipalities.

Operated under the jurisdiction of the State Department of Education, 17 regional vocational-technical schools provide publicly funded secondary school education that features specialized vocational training. There are also 17 state-funded regional vocational agriculture centers located in selected public high schools, but available to students regionally, around the state. Various public high schools also operate public elementary and secondary school programs for adults that lead to an adult high school diploma. State agencies other than the State Department of Education have organized unified public school districts for the education of children within their jurisdictions. These are the Department of Children and Youth Services, the Department of Correction and the Department of Mental Retardation.

Finally, the state's public education programs are complemented by its private institutions of education. These number 384 schools, of which 194 are operated by the three dioceses of the Catholic Church, 34 are Christian Academies, 23 have other religious affiliations, 85 are independent private schools (some of which are nationally renowned), and 51 are private special education facilities.

Connecticut's School Population
Kindergarten to Grade 12, 1985
Total: 552,034



*Includes CT Residents Only

Source: Connecticut Department of Education

Demographic changes have influenced enrollment in Connecticut's public schools. The decline in birth rates of the 1970s led to a pronounced decline in public school enrollment. In 1970 the total kindergarten to grade 12 enrollment, including vocational-technical schools, was 671,146; by 1985 it had dropped to 475,373 (see Table). This represents a decline of 29 percent. In the last five years the decline has been 13 percent. Moderate declines are expected to continue until 1990, after which a gradual increase in student enrollments should occur.

Enrollment in Connecticut Public Schools

School Year	K-5	6-8	9-12	Nongraded	Total
			Actual		
1970	324,390	151,618	183,208	11,930	671,146
1975	282,281	152,686	200,954	16,456	652,377
1980	219,597	124,655	181,818	22,756	548,826
1985	200,356	98,034	153,170	23,813	475,373
			Projected		
1990	222,558	96,070	118,666	23,411	460,705
1995	235,361	106,558	127,131	23,411	492,461
2000	223,293	112,513	139,915	23,411	499,132

Source: CT Department of Education

As the number of students has declined, the number of schools has fallen correspondingly. School closings—especially of elementary schools—have caused the number of operating schools in the state to drop from 1,131 in 1975 to 937 in 1985. The high schools, which numbered 140 in 1975 and 136 in 1985, have adapted not so much by closing their doors as, in many cases, by reconfiguring the range of grades served. For example, a number of senior high schools covering grades 10 to 12 have more fully utilized available facilities by shifting to a grade 9 through 12 configuration. The period of public school closings, however, now appears to be over.

Regarding its responsibility for administration of education in the public sector, the State Board of Education has adopted as one of its major goals to improve the quality of instruction and curriculum. The implications of this goal for programs, for improvements in the areas of curriculum standards, and for the evaluation of achievement are discussed in Chapters 3 and 4. The implications for the various student subpopulations are described below.

Disadvantaged students, as determined by children whose families are provided financial support by Aid to Families with Dependent Children (AFDC), have declined in numbers since 1980 (see Table). In 1985-86 there were approximately 50,600 AFDC students, or 11.0% of the total public student population. Education programs to help this group of students are designed to provide compensatory education services that will raise their mastery of basic skills and, in so doing, lead to a decrease in the percentage of students requiring remedial assistance. A combination of state, federal and local funding supports these programs.

Percent of AFDC Recipient Students Enrolled in Public Schools

School Year	ADM*	AFDC** Count	Percent AFDC
1985-86	461,691	50,586	11.0
1984-85	467,407	52,028	11.1
1983-84	476,813	55,081	11.5
1982-83	491,835	56,294	11.4
1981-82	510,383	75,085	14.7
1980-81	533,836	76,873	14.4
1979-80	554,363	75,011	13.5
1978-79	578,277	78,599	13.6

*Average Daily Membership
**Aid to Families with Dependent Children

Source: CT Department of Education
CT Department of Income Maintenance

Over the past decade, the number of minority students enrolled in Connecticut's public schools has been rising. Although minority enrollments are up overall from 94,969 in the fall of 1975 to 101,698 in the fall of 1985, the black segment of this enrollment has declined consistently, from 62,926 in 1975 to 55,831 in 1985. Over the same time period, however, the enrollment of Hispanics and other minorities increased from 32,043 to 45,867, thereby resulting in an overall growth in minority enrollment.

In the five largest cities—Hartford, New Haven, Bridgeport, Waterbury and Stamford—minority student enrollments have declined moderately during the last ten years, i.e., 63,891 in 1975 for the five cities combined versus 62,423 in 1985. Nevertheless, since nonminority enrollments have been declining faster than minority enrollments, the proportion of minority students in these cities has grown substantially from 58.1 percent in 1975 to 73.4 percent in 1985. Statewide, the proportion of minority students has risen from 14.7 percent in 1975 to 21.7 percent in 1985.

Minority Enrollment in the Local Public and Regional Vocational-Technical Schools

Year	Minority Enrollment	Percent of Total	Black	Hispanic	Other Minority*
1985	101,698	21.7	55,831	37,754	8,113
1980	97,438	18.0	59,167	32,443	5,828
1975	94,969	14.7	62,926	28,671	3,372

*Includes American Indian and Asian American

Source: CT Department of Education

The State Board of Education seeks to decrease any disparities in educational programs that may affect minority student groups. It further seeks to provide incentives for integration of students and reduction of racial isolation. Racial imbalance, if evident in a school district's enrollment patterns, is closely monitored, and written plans are required of school districts to remedy these conditions. According to state regulations, 71 schools were identified as racially imbalanced in 1977; only 21 existed in 1985.

This chapter has presented the context in which education occurs in Connecticut, that is, the demographic, economic and institutional background that sets the stage for the state's educational programs. Many references have been made to programs that address the goal of improving instruction and curriculum. Closely allied with this are the many aspects of improving the effectiveness of teachers and teaching, presented in Chapter 2. In Chapter 3, outcomes are measured in terms of student achievement. The wide range of public education programs is dealt with more specifically in Chapter 4. The funding of public education in Connecticut is described in Chapter 5. And, in diagrammatic form, Chapter 6 presents the various measures that have been chosen for use as indicators of success.

Connecticut's Teachers

Two events that are likely to shape the teaching profession for at least the next decade occurred in the 1985-86 school year.

- Connecticut's Competency Examination for Prospective Teachers (CONNCEPT) was administered for the first time on October 19, 1985, to more than 400 students seeking admission to the state's teacher preparation programs. CONNCEPT is designed to ensure that candidates for teacher preparation programs are competent in the reading, writing and mathematics skills considered essential for practicing teachers. Beginning May 1, 1987, all persons seeking Connecticut certification will be required to pass CONNCEPT.

- The legislature, on June 6, 1986, passed An Act Concerning Education Enhancement. [*For subsequent legislative revisions, effective January 30, 1987, see Public Act 87-2.—Ed.*] Over the next three years, approximately $300 million will be spent to upgrade the salaries of starting and experienced teachers, to provide more teachers for towns with low staffing ratios, and to support other initiatives to improve the teaching profession. The major provisions affecting teachers include:

— Fully funding the cost to districts that voluntarily raise their minimum salaries to $20,000 by 1988-89. (The designated minimum is $21,500 in towns where average household income exceeds the statewide average by 75 percent.) The legislation provides additional fiscal incentives to districts that participate in the program.

— Providing $31.4 million in teacher salary aid to districts that choose to reopen negotiated 1986-87 salary schedules of experienced teachers, $63 million in 1987-88 and $94.4 million in 1988-89 for reopened or newly negotiated salary settlements.

— Providing $94.7 million in general aid to towns over three years for educational or other purposes. With few exceptions, this money is available to towns that agree to participate in the minimum salary and teacher salary aid programs.

— Providing $25,000 per year for each teacher hired beyond the number reported on September 15, 1985, for a period of three years, to 43 towns whose teacher-pupil ratios are most in need of improvement. Statewide, up to 240 positions will be funded in 1986-87, 480 in 1987-88, and 714 in 1988-89.

—Providing grants to school districts to encourage the development of local plans to improve career incentives and teacher evaluation.

— Revising teacher certification from a two-tier system to a three-tier system, providing for initial, provisional and professional certification, and establishing a new alternative route to certification. The three tiers include a one-year certificate enabling an individual to participate in a beginning-teacher support and assessment program; an eight-year provisional certificate granted upon successful completion of the beginning teacher program and recommendation of the superintendent; and a five-year renewable professional certificate granted after at least 30 credit hours beyond the bachelor's degree and three years of successful teaching. Renewal of the professional certificate is dependent upon completing a program of continuing education.

— Establishing and funding a Cooperating Teacher Program, institutes to provide continuing education for cooperating teachers, a Beginning Teacher Support and Assessment Program, a program to identify and disseminate exemplary classroom projects, and an Institute for Effective Teaching.

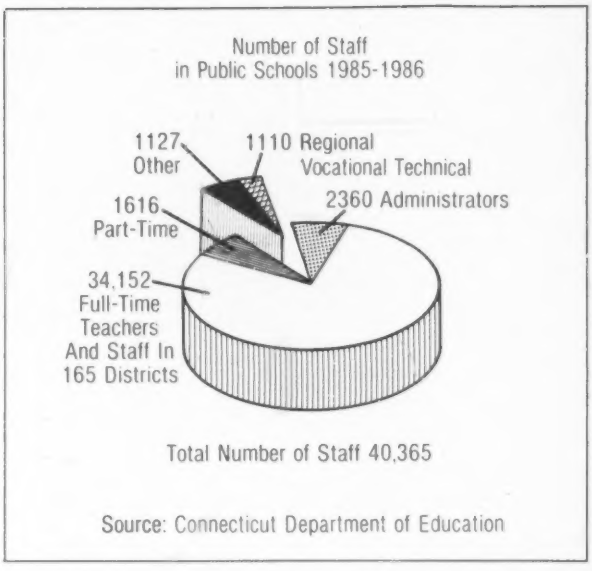
— Establishing an Academic Scholarship Loan Program to encourage graduate students to teach in Connecticut schools.

The data provided in the following sections of this chapter highlight the conditions that have made this monumental reform necessary. The data will provide the baseline statistics against which the success of the reform will be measured.

Teacher Profile

In 1985-86 there were 40,365 people employed in certified professional positions in the public schools of Connecticut. This includes 38,128 full-time and part-time staff in the state's 165 local and regional school districts, 1,110 in the 17 regional vocational-technical schools, 409 in regional educational service centers, 306 in E.O. Smith High School and three endowed and incorporated academies, and 412 in the three Unified School Districts run by the Departments of Correction, Mental Retardation, and Children and Youth Services. For historical continuity, many of the analyses that follow will concentrate on the 34,152 full-time teachers and support staff employed in the local and regional public schools.

With enrollment in the early elementary grades starting to rise and the increased need for special education teachers continuing, the number of full-time staff in the local and regional school districts has grown for the past two years, after five years of decline. Despite the increase of almost 600 full-time staff in the past two years, the current figure of 36,512 is more than 3,000 below the 1978 count. Since 1978, the number of special education teachers has increased every year and the number of vocational education teachers has decreased. More than 800 special education positions, an increase of 28 percent, have been created since 1978. At the same time, 466 full-time teaching positions within vocational education have been eliminated.



While full-time positions were declining through 1983 (when they began increasing), part-time positions have increased steadily since 1978. The 165 local and regional public school districts employed 1,616 people in part-time positions in 1985-86. This number has risen 31.8 percent since 1978 and now represents 4.2 percent of the professional positions compared to three percent in 1978. These increases are not limited to a few subject areas. They appear to represent a reduction in the needed number of course sections due to declining middle school and secondary enrollments.

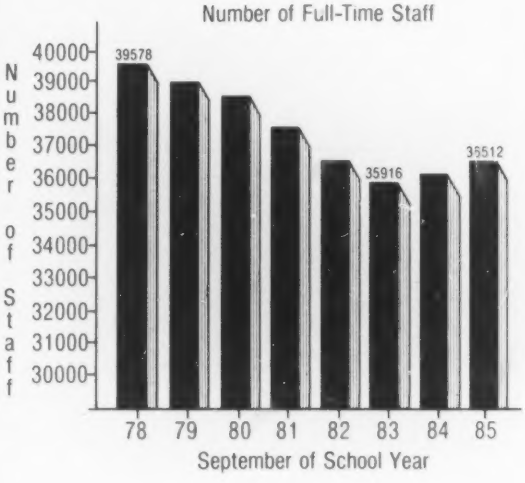
Number of Full-Time Staff in the 165 Local and Regional School Districts

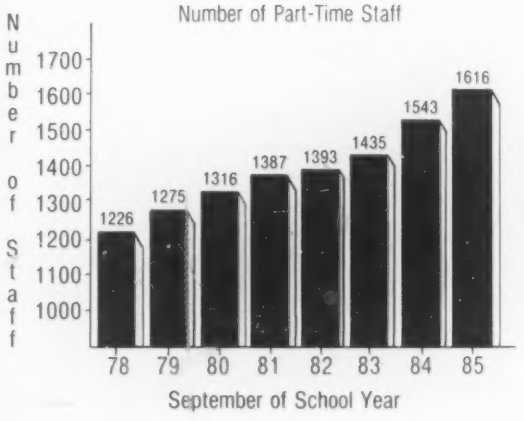
	1978	1985	Percent Change
General Elementary	13,186	11,559	-12.3
Content Specialist	15,613	13,888	-11.0
Special Education	2,881	3,699	+28.4
Vocational Education	2,930	2,464	-15.9
Total Teachers	34,610	31,610	- 8.7
Support Staff	2,683	2,542	- 5.3
Administration	2,285	2,360	+ 3.3
Total Staff	39,578	36,512	- 7.7

Source: CT Department of Education

Women comprise an increasingly greater percentage of the staff. In 1985, about four of five new staff were women, bringing the total percentage female to 63.4 percent compared to about 60 percent in the late 1970s. Part of the reason for this rise is the recent increase in staff in areas traditionally dominated by women (elementary and special education teachers) and the decline in the number of vocational education teachers, an area that has been more than 55 percent male.

Staff* in the 165 Local and Regional School Districts





*Includes administrators. Does not include staff of state vocational-technical schools.

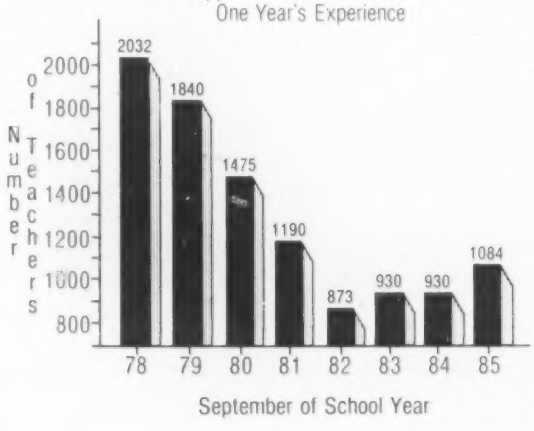
Source: Connecticut Department of Education

In 1985 minorities filled 2,207, or six percent, of the full-time professional positions in the local and regional school districts. Ten years ago minorities represented 4.8 percent of the staff. Today, minorities represent less than five percent of the staff in 39 of 61 nonadministrative areas. Minorities represent more than ten percent of the teachers of students in programs for the bilingual (67.4%), Spanish (13.0%), blind (11.1%) and skilled trades (10.5%), and 13.4 percent of the social workers.

Although the percentage of minorities in the teaching profession is less than the percentage of minority students (21.6% in 1985) and below the percentage of minorities in the general population (11.8% according to the 1980 census), it is roughly comparable to the 5.2 percent of all people with a college degree who are minorities (according to estimates from the 1980 census).

Trends in the summary statistics on the staffing characteristics of age, experience and educational attainment are affected by changes in staffing level. As the number of teaching positions declines there is a reduced need for new staff. Naturally, new staff tends to be young, inexperienced and holders of bachelor's degrees. Layoffs also directly affect the less senior staff. It is not unexpected, therefore, that the average age and experience of the staff along with the percentage holding an advanced degree have all increased as the total number of teachers and support staff has declined.

Number of Full-Time Teachers and Support Staff With Less Than One Year's Experience



Source: Connecticut Department of Education

Since 1978, the mean age of the staff has increased from 38.4 to 42.2 years, the mean years of teaching experience in a Connecticut public school have increased from 10.0 to 13.6 years, and the percentage of the staff with an advanced degree has increased from 64.9 to 74.7 percent. As the staff ages, there are increasing concerns about the possibility of a growing number of retirements

Characteristics of Teachers and Support Staff

Year	Mean Years CT Experience	Percent With Advanced Degrees	Mean Age
1985	13.6	74.7	42.2
1984	13.4	74.3	41.9
1983	13.1	73.4	41.4
1982	12.6	72.0	40.8
1981	11.8	70.4	40.1
1980	11.3	69.0	39.5
1979	10.7	67.1	38.9
1978	10.0	64.9	38.4

Source: CT Department of Education

and finding people to fill the vacant positions. In 1985, 1,203 teachers had a combination of age and experience that would qualify them for regular retirement. Fortunately, many of our teachers choose to teach well after they are eligible to retire.

A steep decline in enrollments, coupled with moderate staff declines and the hiring of new staff to retain low class sizes as elementary enrollments increase, has resulted in significant improvement in the ratios of teachers and support staff to students in the 165 local and regional public schools since 1978. Between 1978 and 1985 the number of teachers per 1,000 students improved from 61.5 to 70.1, an increase of 14 percent. This is equivalent to an improvement in the student/teacher ratio from 16.3:1 to 14.3:1. Concurrently, the support staff per 1,000 students improved from 4.8 to 5.7. This is equivalent to a reduction in caseload from 208 to 175 students for each counselor, psychologist, social worker and reading consultant.

Staffing Ratios in the Local and Regional Public Schools

Year	Teachers Per 1,000 Students	Support Staff Per 1,000 Students
1985	70.1	5.7
1984	68.8	5.6
1983	67.2	5.4
1982	66.4	5.4
1981	66.2	5.3
1980	65.0	5.2
1979	63.5	5.1
1978	61.5	4.8

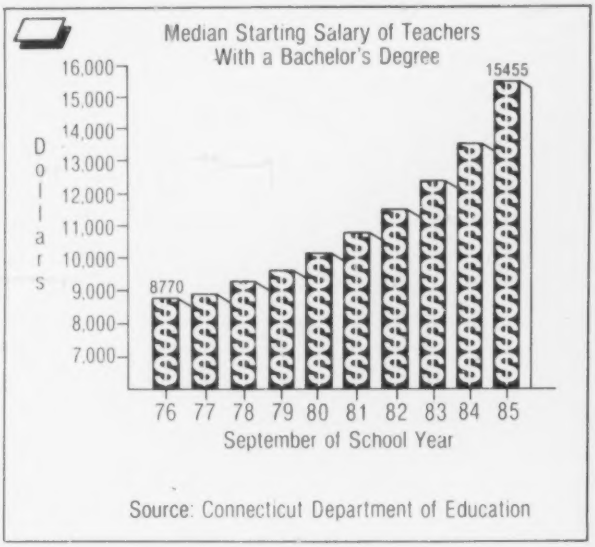
Source: CT Department of Education

Compensation

Even before the passage of the Education Enhancement Act, starting and average salaries of full-time teachers and support staff in the local and regional public school districts had started to grow at a rate exceeding inflation.

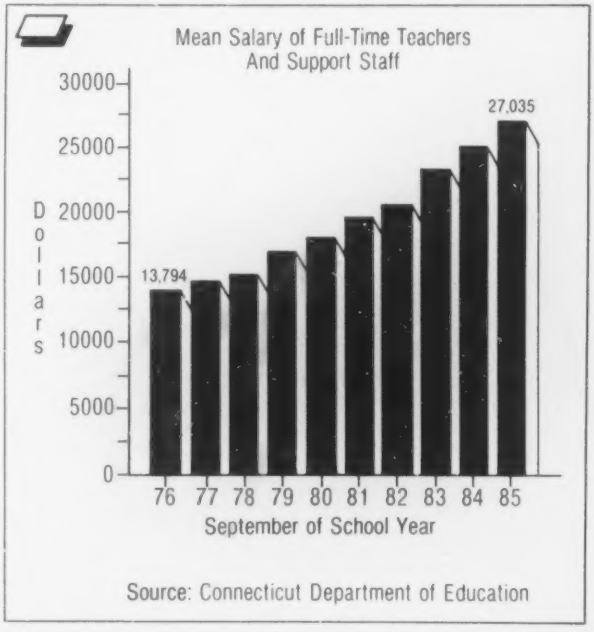
In 1985, the median minimum salary on districts' salary schedules was $15,455 with a range from $11,497 to $20,322. In the past year the median rose by 13.2 percent, the largest annual increase ever recorded. The year before that the increase was 10.3 percent, but in the period from 1976-77 to 1983-84 the increases averaged five percent annually. Data provided by the Connecticut Education Association indicate that the median salary for an inexperienced teacher with a bachelor's degree will be $17,000 in 1986-87 with a range of $13,679 to $21,658. These figures are certain to increase as districts participate in the minimum salary provisions of the Education Enhancement Act.

The mean salary paid to full-time teachers and support staff in the local and regional public schools was $27,035 in 1985-86. This mean increased by 8.3 percent last year; in the 1976-1985 period, the increase in mean averaged 7.7 percent annually. Just as with the other teacher characteristics, the mean salary is influenced by changes in the number of staff. In periods of reduction, the mean will be artificially inflated; in periods of hiring, it tends to be artificially deflated. In the past two years the average salary increase of teachers continuing as teachers was 10.5 percent.



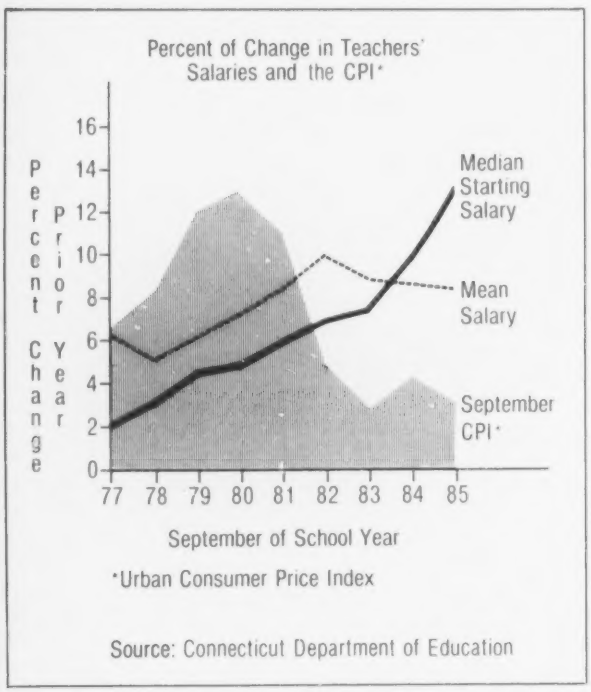
Source: Connecticut Department of Education

The American Federation of Teachers has reported that the 1985-86 average salary of Connecticut teachers was 11th best in the country. In 1980-81 it ranked 20th. Although Connecticut's average teacher salary was 6.6 percent above the U.S. average, Connecticut's cost of living has been estimated as 27.8 percent above the U.S. average. A reanalysis of Connecticut's average salary adjusted for its cost of living has ranked our state 39th of the 48 contiguous states plus the District of Columbia.



Source: Connecticut Department of Education

Teachers' starting and average salaries tend to lag behind inflation when inflation is high and exceed inflation when it is low. In the last five years, with inflation running at five percent or less, increases in both starting and average salaries have exceeded inflation. The recent increases in starting salaries have yet to offset the relatively low rates of increase observed prior to 1982. The average starting salary in 1985-86 is $1,033 below the inflation-adjusted median starting salary of 1976. The 1985 mean salary of teachers, on the other hand, is $1,102 above the inflation-adjusted 1976 mean. The reasons for the differences in the relative growth of the mean salary versus the starting salary are (1) the mean has been artificially inflated by the changes in the composition of the staff, and (2) local board-union negotiations tend to concentrate on increasing the salaries of those already teaching rather than of those entering teaching.



Source: Connecticut Department of Education

The starting and mid-career salaries of teachers tend to lag behind the salaries paid to state workers in positions requiring comparable experience. In 1985, selected entry-level state positions requiring a bachelor's degree in the area of specialization and no experience ranged from $16,669 for a social worker trainee to $23,297 for a computer programmer intern. In general, these state salaries are below offers made to graduating seniors in 1986 as reported by the College Placement Council. The salaries paid after about 10-12 years of state service range from $26,612 for a librarian to $36,924 for a Data Processing Systems Analyst I.

The gap between teachers' salaries and those in other professions should narrow in the next few years. Without considering the teacher salary aid provided in the 1986 legislation, the Connecticut Association of Boards of Education has reported teacher salary settlements with

Teachers' Salaries Compared to Salaries of State Employees 1985

	Salary 1980	1985
Starting Position		
Teacher (Median BA Starting)	$10,155	$15,455
CT Career Trainee (Bus. Admin., Accounting)	12,286	17,285
Computer Programmer Intern	15,774	23,297
Engineer Trainee	15,033	22,203
Social Worker Trainee	11,850	16,669
Staff Nurse	14,311	20,130
Midcareer		
Teacher (Median MA Maximum)	19,025	27,986
Accountant II	22,812	32,086
Civil Engineer	21,808	32,199
DP Systems Analyst I	25,001	36,924
Librarian II	18,920	26,612
Personnel Officer II	25,984	35,996
Social Worker	19,799	27,847

Source: CT Department of Education

increases averaging above ten percent for 1986 and 1987. State salaries will increase about five percent annually and pay increases for salaried workers in the private sector nationally will average six percent in 1986 and 5.5 percent in 1987, according to The Conference Board.

Administrator Profile

In 1985 there were 2,360 full-time administrators in the local and regional school districts. This represented 6.5 percent of the professional staff. The changes in the number of administrators reflect not only actual changes in the number of positions, but also more accurate reporting of administrative positions. For example, in 1985, 65 administrators were added because school business official became a certifiable position.

Ratio of Administrators to Staff

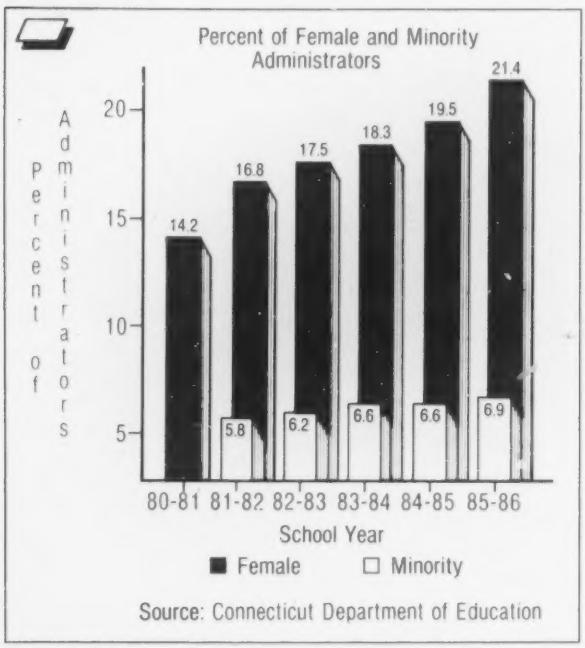
September of School Year	Number Full-Time	Full-Time Equivalent Administrators Per 100 Nonadministrators
1985	2,360	7.8
1984	2,260	7.0
1983	2,278	7.2
1982	2,287	6.7
1981	2,308	6.5
1980	2,328	6.4
1979	2,300	6.1
1978	2,285	6.1
1977	2,274	6.1

Source: CT Department of Education

The ratio of full-time equivalent administrators (which includes teachers with secondary administrative assignments such as unit leader or department chairperson) has increased from 6.1 to 7.8 administrators per 100 teachers and support staff.

The "typical" administrator is a 48-year-old white male with a 6th year certificate, a combination of 20.7 years of teaching and administrative experience in Connecticut, and a salary of $42,410.

In recent years, representation of females and minorities in administration has increased. In 1985-86, 21.4 percent of administrators were women compared to 14.2 percent five years ago. The 165 school districts now employ 162 minorities in administrative positions. This represents 6.9 percent of all administrators, a percentage higher than that of minorities employed in all professional positions (6.0%).



Source: Connecticut Department of Education

Professional Development

Ongoing and systematic professional development (CGS 10-220a) is a major commitment of the State Board of Education. The centerpiece of this effort is the State Department of Education's Institute for Teaching and Learning. This program began in the summer of 1984 with a budget of $500,000. Twenty-four courses in a variety of instructional areas were offered to 600 teachers. The next year, with a budget of $1.5 million, 84 institutes were presented to 1,800 teachers.

At the same time, the Institute was expanded to include a series of conferences and workshops held throughout the year. During the 1985-86 school year, the Institute presented programs on adolescence, reading, assessment, early childhood and thinking skills that attracted 2,000 participants. These conferences brought the total participation in Institute programs for the year to approximately 5,000.

A new and significant program of the Institute for Teaching and Learning, the Connecticut Principals' Academy, was initiated during the 1985-86 school year. The Academy provided a convocation, 14 workshops and four conferences aimed at improving skills of public school principals. Approximately 1,150 Connecticut administrators participated in these programs.

Funds from the federal Carl D. Perkins Act support a wide range of preservice and in-service programs and projects designed to provide professional development and technical courses for certification and to increase the competence of vocational education teachers, counselors and administrators. Special emphasis is placed on the integration of handicapped and disadvantaged students in regular courses of vocational education.

There also are numerous professional development activities at the local school district level. This past year each school district submitted a five-year professional development plan aimed at meeting the needs of its teachers and administrators. In 1984-85 districts reported spending $16.2 million or 0.9 percent of their budgets on staff development.

Supply and Demand

The long-range prediction of teacher supply and demand—already a difficult task—has been complicated by recent initiatives to increase salaries, test teachers prior to certification and offer forgivable scholarship loans. In this section we will concentrate on the present and recent past and allow the reader to speculate about the relative impact of the recent changes on teacher supply and demand.

Changes in Professional Staff 1984 to 1985

Subject Area	Left		New Staff: Returned Experienced	New Staff: Inexperienced*	New Staff: Total
	Number	Percent			
Elementary	635	5.4	564	372	936
Content Areas	914	6.1	611	473	1,084
Special Education	422	9.8	348	298	646
Vocational Subjects	238	7.1	96	96	192
Support Staff	154	5.5	120	70	190
Administration	169	7.0	108	22	130
TOTAL	2,532	6.4	1,847	1,331	3,178

*No previous Connecticut public school teaching experience

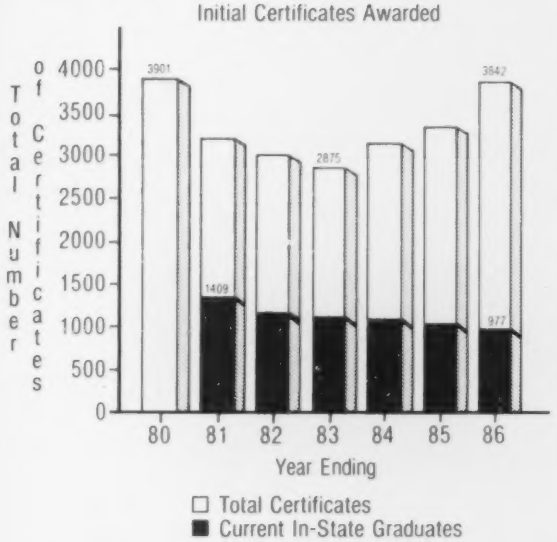
Source: CT Department of Education

The annual need for new teachers depends upon teacher turnover (the number of teachers who leave teaching either temporarily or permanently), the change in the number of positions in response to changes in enrollment, and the addition of new positions in response to new programs.

Between 1984 and 1985 the turnover in full-time and part-time positions in the public schools was 2,532 professionals, or 6.4 percent of the 1984 staff. Special education had the highest turnover (9.8%) and elementary teachers had the lowest (5.4%).

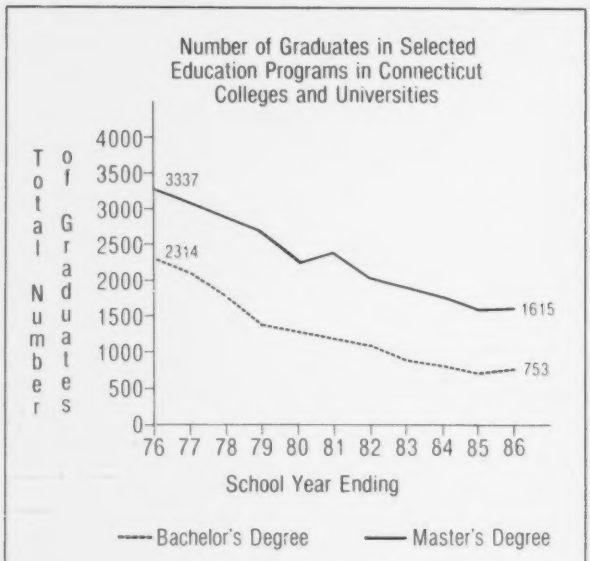
In 1985, 3,178 positions were filled by people not employed in the public schools at the beginning of the prior school year. More than 58 percent of the positions available were filled by returning experienced teachers. The remaining 1,331 positions were filled by people classified as inexperienced, although many of these individuals have taught in private schools or out of state. In Connecticut, "experience" is reported as in-state public school teaching experience.

About three of every four teachers with no prior Connecticut teaching experience hired in the past two years obtained their certificates within the year prior to employment in the public schools. The remainder obtained their teaching certificate more than one year prior to obtaining a teaching job.



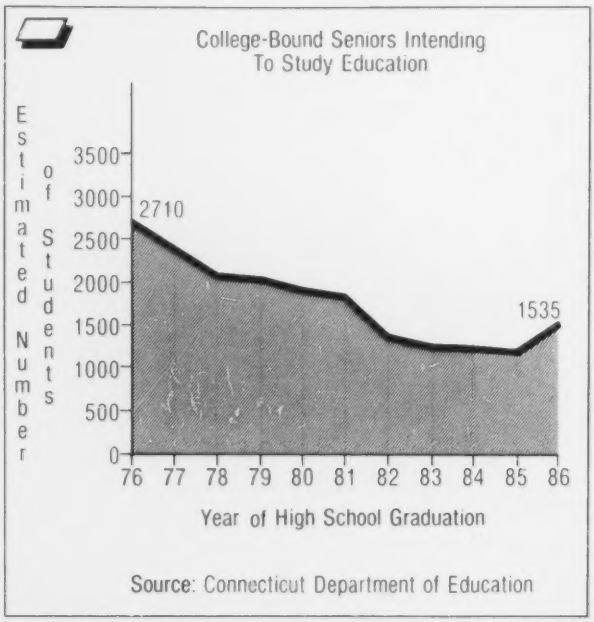
Source: Connecticut Department of Education

In the seven years that the State Department of Education has tracked the number of first certificates awarded, the total dropped from 3,901 in 1979-80 to 2,875 in 1982-83; it is presently 3,842. In the past year alone, the increase was almost 500 people. While the number of initial certificates awarded has rebounded from the 1982-83 low, the number of initial certificates issued to current graduates of Connecticut institutions has dropped steadily. In 1980-81 Connecticut colleges and universities supplied 42.4 percent of the candidates for initial certificates. In 1985-86, the percentage had fallen to 25.4. Current Connecticut graduates include students receiving their bachelor's degrees in education, students not previously certified who earned master's degrees in education, and those majoring in subject areas with a minor in education.



Source: Connecticut Department of Higher Education

The number of students earning bachelor's or master's degrees in education from Connecticut's colleges and universities increased for the first time in ten years, but are still well below the levels of ten years ago. The increase totaled 69 students in all degree categories. Ten years ago, 16.7 percent of all bachelor's degrees awarded were in education; in 1985-86, the percentage was 5.3. The decline from 2,314 bachelor's degrees awarded in education in 1975-76 to 753 in 1985-86 is 67.5 percent.



Source: Connecticut Department of Education

Ten years ago almost one in two master's degrees awarded in the state was in education; in 1985-86 the figure was close to one in four. The number of master's degrees awarded in education has declined 51.6 percent in the past ten years from 3,337 in 1975-76 to 1,615 currently.

The number and percentage of college-bound students (those who take the Scholastic Aptitude Test) indicating their intention to prepare for a career in education also increased significantly for the first time in the past ten years. In 1985-86, an estimated 1,535 high school seniors (355 more than the prior year) indicated an intent to study education. This represents about one in 19 members of the class of 1986. Despite this increase, the intent to study education is still well below the level of ten years ago, when about one in 12 seniors (a total of 2,710) chose this area of study.

Percent of Those First Certified Who Are Hired

Year September 1 to August 31	Number of Initial Certificates	Employed September 1st Number	Percent
1985-86	3,842	950	24.7
1984-85	3,346	1,006	30.1
1983-84	3,117	826	26.5
1982-83	2,875	651	22.6
1981-82	3,001	649	21.6

Source: CT Department of Education

The supply of those first certified appears to be sufficient to meet current demand, although shortages in some subject areas and some parts of the state are to be anticipated. Fewer than one in four of those certified in the year prior to September 1, 1986, had a certified position in the Connecticut public schools in September. The three-year trend of an increasing percentage employed within one year of certification (from 21.6 percent in 1981-82 to 30.1 percent in 1984-85) was broken in 1985-86. An increase in the number first certified coupled with a slight decrease in the number employed dropped the percent from 30.1 to 24.7.

When the clinical assessment and subject area testing components of Connecticut's program to assess prospective teachers become operational, we will have better indicators of the qualifications of new classroom teachers. Until then we have only the SAT scores of those intending to study education and the initial results from CONNCEPT as indicators.

The combined verbal and mathematical SAT scores of college-bound students intending to study education increased dramatically in 1985-86, but are still among the lowest of any category reported by The College Board. Although the scores of those intending to study education have improved by 37 points since their 1981-82 low, they still lag 74 points behind the state average of all college-bound students. An analysis of the SAT scores of students who took CONNCEPT in March 1986 verified that college students seeking admission to a teacher preparation program in Connecticut do indeed have low SAT scores. About 29 percent of 735 students taking CONNCEPT or requesting a waiver (because their combined SAT scores were above 1000) had a combined SAT score below 800. With 67 percent of those with combined SAT scores below 800 failing CONNCEPT and thus being denied admission to the state's teacher preparation programs, the SAT scores of those who eventually enter the classroom are sure to be well above the current scores of college-bound seniors who indicate they intend to study education.

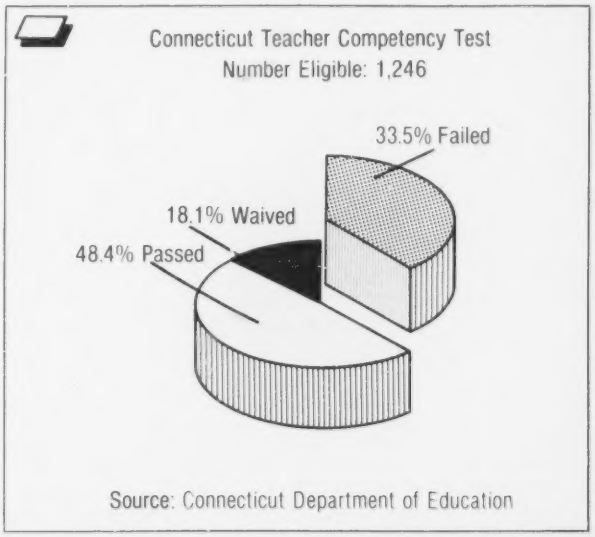
Combined SAT Scores of Those Intending to Study Education

Year	Education	State Average
1985-86	840	914
1984-85	828	915
1983-84	817	904
1982-83	804	898
1981-82	803	896
1980-81	814	893
1979-80	810	897
1978-79	824	900
1977-78	825	907

Source: CT Department of Education

The Connecticut Competency Examination for Prospective Teachers (CONNCEPT) has been designed to ensure that prospective teachers demonstrate competence in the areas of reading, writing and mathematics. It is the first step in a teacher licensure process that will include a subject knowledge test and clinical assessment. The CONNCEPT was administered twice in 1985-86: October 1985 and March 1986.

Of the 1,246 prospective teachers who took CONNCEPT in 1985-86, 66.5 percent passed or received a waiver because their combined SAT scores were above 1000. The passing rate for the 1,021 first-time examinees



Source: Connecticut Department of Education

was 54.8 percent. Only 15 percent of the test-takers were male and four percent were minorities. Both percentages are below those of males and minorities among current teachers. The low passing rate among minorities (29%) will further cut into the pool of potential minority teachers.

To entice students into the teaching profession, Connecticut (in addition to increasing salaries) is operating two student loan programs with forgiveness features. A third recently has been enacted.

Teacher Incentive Loan Program

Shortage Area	Year of Graduation 1984	1985	1986
Mathematics	11	31	30
Physics	2	3	5
Chemistry	3	6	7
Industrial Arts	0	7	6
Speech and Hearing	1	11	17
TOTAL	17	58	65

Source: CT Department of Education

The Teacher Incentive Loan Program is designed to provide a financial incentive to college students who enter fields experiencing a shortage of teachers. Loans of up to $5,000 for two years are forgiven gradually over five years for people who teach in a Connecticut public school and over three years for those who teach in a priority school district. In each year since the program's inception, mathematics, physics, chemistry, industrial arts and speech and hearing have been the declared areas of shortage.

As of October 1985, 75 students who received these loans had been graduated. Of the 75, 39 (52%) were teaching in Connecticut's public schools and 5 were teaching in nonpublic schools. When surveyed, nearly all recipients indicated that higher salaries would be necessary to attract more people into teaching. With significant increases in salaries forthcoming, we might anticipate that a higher percentage of loan recipients will eventually enter teaching.

The program of Educational Loans to Encourage Excellence in Teaching (ELEET) provides scholarship loans to Connecticut residents intending to teach who meet certain qualifications: combined SAT scores of 1200 or above; a combined SAT of 1000 and a class rank in the top 20 percent; or, for college students, a grade point average of at least 3.3 after 15 hours of college credit and demonstrated financial need. Over four years, students may borrow up to $12,000 to attend a public college and $20,000 to attend a private institution. The college need not be in Connecticut. The loan forgiveness schedule is the same as the Teacher Incentive Loan Program except that a person may teach in an approved nonpublic school in Connecticut.

In its inaugural year, 1985-86, 110 students from a pool of 244 applicants received a total of $458,000 in aid. In its second year, the program attracted 276 applicants, of whom 115 were awarded loans.

The third scholarship loan program was established by the Education Enhancement Act of 1986. The first awards in the Academic Scholarship Graduate Student Loan Program will be made in the 1987-88 fiscal year. Eligible applicants will be Connecticut residents enrolled in a full-time graduate program in state, with a 3.1 undergraduate average (or a high score on the Graduate Record Examination), who intend to teach in a Connecticut public or nonpublic school. One-year loans of up to $5,000 for attendance at a private college or $3,000 at a public college will be forgiven for three years of teaching in a Connecticut public or nonpublic school or two years of teaching in a priority school district.

Connecticut has taken significant steps to address the problem of a perceived or real decline in the quality of teachers and the decline in the number of students interested in teaching. The comprehensive program of teacher testing will ensure that every new teacher has knowledge not only of basic skills, but also of his/her subject area, plus demonstrated pedagogical skills in a clinical assessment. Increased salaries and three loan programs should entice more students into teaching.

B Student Achievements

Test scores are an important indicator of student achievement—and in turn a measure of the extent to which the public schools are achieving the goal of equity and excellence. The scores help to answer five questions:

- How well are Connecticut students achieving the established educational objectives?
- How many students need remedial assistance?
- How do the accomplishments of today's students compare with those of students in previous years?
- How do Connecticut students compare to students nationally?
- What are the patterns of student performance by race, gender and type of community?

Connecticut has developed a balanced testing program that provides answers to all five questions. The Educational Evaluation and Remedial Assistance (EERA) program and the new mastery testing program, initiated in the fall of 1985, are designed to monitor student achievement on the basic skills of reading, language arts (including writing) and mathematics. The Connecticut Assessment of Educational Progress (CAEP) tests provide another way to chart the progress of students in their acquisition of knowledge in specific subject areas and their ability to apply that knowledge. Areas in which

students have been tested include art and music, career education, English language arts, mathematics, social studies, science, and the vocational education areas of business and office education. New testing programs are being initiated in foreign languages (French, German, Italian, Latin and Spanish), drafting, graphic arts and small engines.

Connecticut also compares the progress of its students against national test data. The EERA biennial reports monitor the results of locally administered, nationally normed, standardized tests in the basic skills in the elementary grades. The CAEP program incorporates items that have been administered to a national sample of students, and The College Board reports regularly on the performance of Connecticut students in comparison with their national counterparts.

In addition to test scores, Connecticut monitors the progress of its students on other performance indicators. These include patterns of courses taken, high school graduation rates, the activities of students after they leave school, and the achievements of adult learners. In order to monitor progress in achieving equity, much of the data is collected and analyzed by race, gender and type of community. This section depicts the achievements of Connecticut students on a number of these indicators.

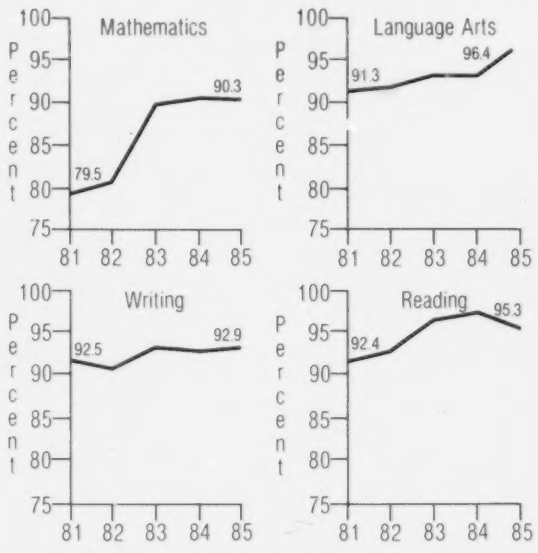
Basic skills achievement. Each year since the fall of 1980, the State Department of Education has administered the EERA 9th grade proficiency test covering mathematics and language arts, including writing and reading. Scores have improved consistently in all four areas. While on the initial test 31.4 percent of the students fell below the Statewide Levels of Expected Performance (SLOEP) on one or more subtests, only 15.6 percent of those taking the test in 1985 did so. Furthermore, for the second year in a row, the percentage of students above SLOEP exceeded 90 percent on each of the subtests.

Students in large cities have shown the most dramatic improvement. Between 1980 and 1985, the percentage of these students scoring above SLOEP rose from 39.9 percent to 73.9 percent in mathematics; from 71.0 percent to 90.3 percent in language arts; and from 65.0 percent to 80.6 percent in reading. Nevertheless, large cities continue to have the highest percentage (37.4%) of students who, based on the test, may need remedial assistance.

Students who do not attain a score at or above the statewide standard in one or more subtest(s) are retested annually in grades 10, 11 and 12 until they reach SLOEP on all subtests. The 1985 test results indicate that 1,413 students in 10th grade, 566 in 11th grade and 213 in the 12th grade need remedial assistance.

Although large cities continue to have the highest percentage of students in need of remedial assistance (37.4%), this figure has dropped by 29.7 percentage points since the initiation of the test. This is an encouraging indication of the benefits of curriculum changes and remedial education programs developed by school districts. Another seemingly positive outcome of remedial assistance for individual students is their performance when retested. In 1985, 59.1 percent of the retested 10th graders, 48.1 percent of the 11th graders and 45.2 percent of the 12th graders passed all the retests they took.

Connecticut Ninth Grade Proficiency Tests Results*
Percent Above State Standards.



*Tests Administered in October of School Year

Source: Connecticut Department of Education

District standardized testing. Under the EERA legislation, school districts have been administering standardized norm-referenced tests of their choice in reading, language arts and mathematics at the elementary grade. The data, collected biennially by the State Department of Education, have shown three trends:

- The percent of students identified as potentially in need of remedial instruction decreased between 1981-82 and 1983-84;
- In 1983-84 mean national percentile ranks on locally administered standardized tests in grades 2 through 8 were well above the national average of 50 and in most cases above Connecticut levels previously reported;
- In 1983-84 the percentage of students in the lowest quartile ranged from 8 to 13 percent, well below the national average (25%) and below earlier Connecticut percentages.

After full implementation of the new mastery test program in fall 1986, the 9th grade proficiency test will no longer be given and the district standardized testing will no longer be required.

Phasing in mastery testing. The new mastery test program for grades 4, 6 and 8 was initiated in the fall of 1985, when the 4th grade test was administered for the first time, followed in fall 1986 by mastery testing of 6th and 8th grade students. The purpose is to measure learning outcomes that most students can reasonably be expected to master by the end of grades 3, 5 and 7.

Mastery tests offer several advantages:

- earlier identification of students needing remedial assistance;
- testing a more comprehensive range of academic skills;
- higher standard for student achievement;
- more useful information about students, schools and districts, and
- improved monitoring of student progress over time.

The new mastery tests are criterion-referenced to help determine the specific level of skills possessed by students. The skills and objectives on which students are being tested at various grade levels were identified by educators statewide as appropriate and reasonable for students at each of the grades tested. The goal is for each student to achieve mastery of all objectives. The first results are from the 4th grade test administered in fall 1985.

Mathematics. Fourth graders mastered an average of 19.3 objectives of the 25 tested, or 77.2 percent. The goal is 100 percent. Statewide, students demonstrated strong scores in the areas of basic facts and simple applications but they did not perform as well on items that require higher-level thinking, i.e., conceptual and analytical skills. For example, students generally did well on addition and subtraction to 18, addition and subtraction without regrouping, and addition with regrouping, but showed less ability to rewrite numbers by regrouping and to identify number sentences from pictures. While students demonstrated acquisition of basic mathematical skills, the results show weaker performance on items that assess an understanding of place value and estimation.

Students also performed poorly on topics not emphasized in primary school mathematics textbooks, such as use of patterns and ability to interpret pictorial representations of mathematical relationships.

A total of 67 percent of the students mastered 19 or more objectives on the mathematics test, and 8 percent mastered all 25 objectives. On the 100-question mathematics section, however, 20 percent of the students answered fewer than 69 questions correctly and were identified as needing further diagnosis and possible remedial instruction.

Language Arts. In language arts, grade 4 students averaged 6.1 objectives of the nine tested, or 67 percent. The goal is that all students master every objective. While students did reasonably well on writing mechanics and locating information, they showed significant weaknesses in higher-order inferential and evaluative reading and listening comprehension. A total of 63 percent mastered six or more objectives on the language arts test, which includes writing and reading skills, and 28 percent of the students mastered all nine objectives.

In writing, grade 4 students averaged 4.8 points on a scale of 2 through 8. The goal is that all students be able to produce an organized, well-supported piece of writing worthy of a score of 7 or 8. Seventeen percent of the students achieved this and an additional 37 percent produced a paper which was generally well organized, receiving a score of 5 or 6. A large group, 26 percent, scored a 4, which is defined as a "minimally proficient piece of writing." Nineteen percent scored 2 or 3, which is below the remedial standard.

In reading, grade 4 students averaged 43 units on a scale of 15 through 99. The goal is that all students be able to read with high comprehension materials typically used at the 4th grade or above, ranking at least 50 on the scale. Forty-two percent of the students scored at least 50 on the reading section, 26 percent scored between 41 and 49, and 32 percent scored below 41, which is the remedial standard. The average score of 43 suggests that Connecticut 4th graders typically can read and comprehend materials normally used up to grade 4.

Students Below Remedial Standard. Of the 29,881 fourth graders who participated in the initial grade 4 mastery testing, 5,394 (18.1%) fell below the standard on one subtest; 6,145 (20.6%) were below standard on two or more subtests. The total number of students below standard on at least one subtest was 11, 539 (38.6%).

Subject area achievement. By monitoring changes in student performance over time, the Connecticut Assessment of Educational Progress (CAEP) helps to identify strengths and weaknesses in curriculum areas. Since 1971 CAEP tests have assessed student achievement in reading (four times), mathematics (twice), science (three times), social studies/citizenship (twice), career education (twice), art and music (once), and business and office education (once). Since most CAEP tests include some items from the National Assessment of Educational Progress (NAEP), it is possible to compare the performance of Connecticut's students with their peers around the country. In the 14 subject area assessments conducted between 1971 and 1985 Connecticut's 4th, 8th and 11th grade students outperformed students nationwide in 33 of 41 comparisons.

Although CAEP results are reported only on a statewide, aggregate basis, local districts may choose to test a sample of their students and obtain results directly from the private vendor responsible for grading the test. Districts then use these results in planning and evaluating their instructional programs.

As the CAEP program has evolved, two features have been added: performance testing and the assessment of higher-order thinking skills.

The development of performance testing began in 1980-81 with the art and music assessment in which a small sample of students was asked to draw and sing. In 1983-84, the business and office education assessment incorporated realistic tasks comparable to those performed in entry-level positions in accounting, secretarial and general office settings. Tasks included making journal entries, typing and note taking. A subsample of students taking the 1983-84 CAEP language arts examination was asked to take notes from a lecture, write a persuasive and narrative essay, and revise and edit passages with deficiencies in focus, organization and support as well as mechanics. On the 1984-85 science examination, a subsample of the group taking the assessment was given a performance component to see how well the students could measure, design experiments, control variables, construct circuits, and work with microscopes

and other instruments commonly found in school science laboratories.

These performance tests have demonstrated the need to include more such activities in the classroom. In accounting, for example, performance was significantly higher on the multiple-choice test items than on the journal exercises. The same was true for the general office students who performed better on the multiple-choice test than on the typing test, thus demonstrating the need for more practice in both speed and accuracy. On the language arts test students had difficulty supporting their opinions and taking organized notes which synthesized the main points of a lecture. Similarly, on the science test students had difficulty designing experiments whose results could be trusted.

Two new CAEP assessments being developed for administration in the spring of 1987 also place strong emphasis on performance. Tests in French, German, Italian and Spanish will include speaking and writing sections in addition to the reading, listening and culture sections.

In the vocational education areas of drafting, graphic arts and small engines, practical tests will be administered to a subset of students.

A second characteristic of the new CAEP tests is the inclusion of higher-order thinking skills. One common finding of both the grade 4 mastery test program and recent CAEP assessments is the general weakness of students on higher-order thinking skills.

On the 1982-83 social studies CAEP assessment, students had difficulty in recognizing associations, such as cause and effect, when more thought than immediate recall was required; in drawing conclusions from evidence and interpreting data on graphs, charts and tables; and in solving problems and using logical analysis in the context of social studies.

On the 983-84 English language arts CAEP test, student performance was generally good when the tasks required simple recognition and identification of verb forms, misspelled words and mistakes in capitalization apart from written context. Likewise, student performance was generally good in response to literal questions about what they heard or read. However, students had greater difficulty when asked to analyze, evaluate, reason or apply a skill within the context of actual writing, listening and reading. Interestingly, although students demonstrated a clear understanding of the mechanics of writing and revising, they exhibited difficulty in effectively supporting their own points of view and their own narrative techniques. While many students could agree or disagree with an assertion, a much smaller percentage could support their positions.

On the 1983-84 business and office education assessment, students had more difficulty when asked to apply their knowledge to tasks requiring integration of information and selection of proper procedures to solve a multistep problem.

The pattern was very similar on the 1984-85 CAEP science assessment. In the area of scientific inquiry, students had difficulty understanding science processes, such as distinguishing between observations and inferences. They also had difficulty understanding the concepts of theories, models and hypotheses. In problems involving the design of experiments, students generally were able to handle one variable. As the number of variables increased, the students' success in designing experiments to deal with them decreased. In the area of measurement, students were able to apply their skills but many had misconceptions as to how the measurements should be used. Finally, although students could read data from tables, charts and graphs, they had difficulty drawing conclusions from these data.

In the earth and space sciences, students had a better grasp of facts than they did of concept and function. They had difficulty in demonstrating an understanding of the motion of the stars across the sky, relative humidity, the interpretation of weather maps and an explanation for the cause of seasonal changes on the Earth.

In the physical sciences, students displayed a number of weaknesses. Many had difficulty with such concepts as acceleration, conservation of mechanical energy, friction, heat conduction, light refraction, the frequency and wavelength of light, and with applications such as the reason for a fuse in an electric circuit.

Another finding that pervaded the science assessment was that students appear to have many pieces of knowledge at their disposal, but have difficulty using that knowledge. They performed well on questions requiring the recall of facts, but were less successful on questions requiring higher thought processes—explaining phenomena, applying concepts, analyzing situations, synthesizing ideas and evaluating evidence. More specifically, students exhibited difficulty drawing conclusions based upon data, trusting their own verification over written authoritative sources, recognizing and controlling variables, being precise in their measurements, understanding basic life functions, linking ideas, analyzing what is wrong with solutions, understanding situations in which scientific concepts apply, and understanding how scientific phenomena apply to home and life situations.

Average Attendance in Connecticut Public Schools

Year	Percent Attending: All Districts	Percent Attending: Large Cities
1985-86	93.2	89.2
1984-85	93.4	91.0
1983-84	92.5	89.9
1982-83	92.9	88.8
1981-82	92.4	88.7
1980-81	92.9	89.7
1979-80	92.6	89.7
1978-79	92.4	88.3
1977-78	92.0	87.9
1976-77	92.3	87.8
1975-76	92.7	89.6

The average daily attendance in 1985-86 slipped slightly from the ten-year high set last year, but, at 93.2 percent of enrollment, it remained above the levels recorded in the prior nine years. The decline was attributed to the decline in attendance in the state's five large cities, which reported an average daily attendance of 89.2. This was 1.8 percentage points below the 1984-85 peak but generally comparable to the past ten years.

National Testing of College-Bound Students. Each year The College Board provides the Connecticut results for three of its national testing programs: (1) the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT); (2) the Scholastic Aptitude Test (SAT) and Achievement Tests; and (3) the Advanced Placement (AP) tests. This information makes it possible to monitor the performance of public and nonpublic school students who are planning to attend college.

Preliminary Scholastic Aptitude Test and National Merit Scholarship Program. Many students who plan to attend college elect to take the Preliminary Scholastic Aptitude Test in the fall of their junior year in high school.

The test is not only a helpful trial run for the SAT, it is also used by the National Merit Scholarship Corporation as the basis for determining scholarship semifinalists and letter of commendation recipients.

Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT) Average Scores for College-Bound Juniors

Test Year	Expected Year of Graduation	Verbal		Mathematics	
		Connecticut	Nation	Connecticut	Nation
1985	1987	42.5	40.9	45.5	45.0
1984	1986	42.4	41.0	44.6	44.2
1983	1985	42.4	40.9	45.3	44.7
1982	1984	42.3	41.1	45.0	44.7
1981	1983	42.8	41.5	45.6	45.1
1980	1982	41.9	40.6	45.2	45.2
1979	1981	41.6	40.3	45.3	45.3
1978	1980	42.2	40.6	45.3	44.8
1977	1979	41.5	40.0	44.3	44.2
1976	1978	41.7	40.5	45.2	45.0
1975	1977	41.9	41.1	45.6	45.5
1974	1976	42.7	41.6	46.2	45.9

Source: The College Board

The PSAT is a somewhat shorter and easier version of the SAT; the PSAT consists of verbal and mathematics sections with a scoring scale of 20 to 80. In 1985, Connecticut students had slightly higher average scores than their peers across the country. Their average verbal score (42.5) was 1.6 points higher than the national average; the mathematics average (45.5) was 0.5 points higher. The statewide average verbal score went up 0.1 point from the previous year while the mathematics score went up 0.9 points.

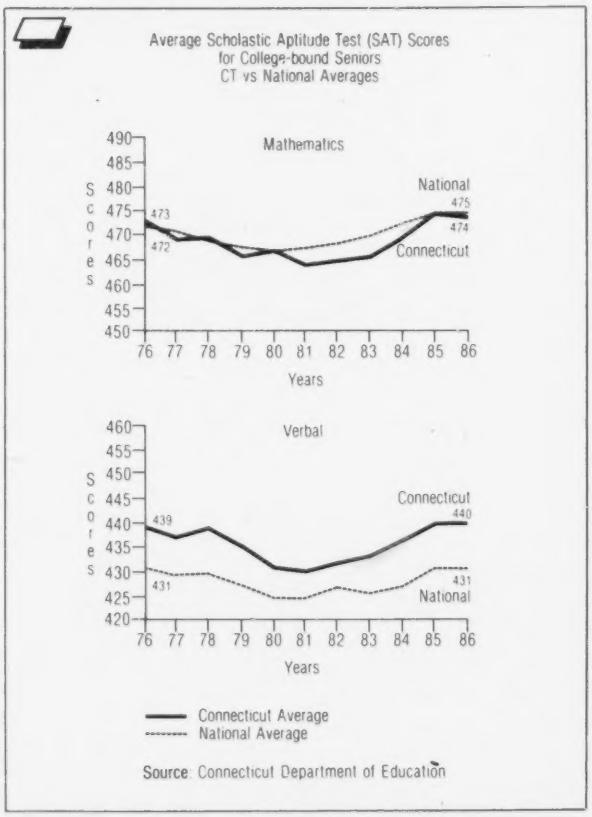
All students who take the PSAT are automatically considered for a scholarship award or recognition through the National Merit Scholarship Program. Awards are made two years later when the students enter college. The highest scoring students are designated semifinalists. Students with high scores, but below the semifinalists, receive letters of commendation. In the Merit Program year 1987 (based on PSATs taken in 1985), 198 students from 81 public and nonpublic schools in Connecticut were semifinalists, and 1,073 students from 169 of Connecticut's public and nonpublic schools were designated to receive letters of commendation. This represented 4.3 percent of those who took the PSAT in Connecticut, compared to 3.2 percent of the national test takers.

National Merit Scholarship Program

Merit Program Year	Number of Schools	Connecticut Commended Scholars	Percent Commended	
			CT	Nation
1987	169	1,073	4.3	3.2
1986	163	965	4.0	3.2
1985	157	1,004	4.5	3.3
1984	166	1,074	4.3	3.2
1983	173	1,190	4.5	3.2
1982	170	1,151	4.2	3.2
1981	171	1,086	4.0	3.0

Source: National Merit Scholarship Corporation

Scholastic Aptitude Test. According to The College Board, the SAT "is a measure of basic reasoning abilities in two areas: verbal and mathematical." Many college admissions officers use test results to supplement a student's high school record because the SAT has proved valid as a predictor of success in college.



Source: Connecticut Department of Education

Connecticut students maintained but did not improve their SAT scores in 1985-86. The average verbal score remained at 440, still the second highest level since 1975, and the average mathematics score declined one point to 474.

Nationally, however, the performance of Connecticut students is notable, since the state continues to have the highest percentage of students taking the test. In general, according to The College Board, the higher the participation rate, the lower the average state scores will be. This is not true for Connecticut, however, where state scores frequently equal or exceed national averages. In 1985-86, for example, Connecticut's verbal average was nine points higher and the mathematics average was only one point lower than the national averages, yet 67.2 percent of the state's seniors took the SAT compared with a national participation rate of about 39 percent.

Furthermore, the percentage of students scoring 600 or better on the verbal section has remained at nine percent, equaling last year's ten-year high for the state. The 17.9 percent scoring above 600 on the mathematics section is the highest since 1971.

There continues to be a gap between the scores of males and females. In 1985-86 the mean scores for males on both the verbal (444) and mathematical (499) tests remained the same as the previous year's scores. The females' verbal score rose one point to 437, but their mathematical scores declined by three points to 451 from last year's high score for the decade. On the SAT verbal, Connecticut males outscored the females by seven points. The difference between the male and female averages, also evident nationally, has ranged from one to 13 points in the past ten years.

The gaps in combined SAT scores between white and black and Puerto Rican students narrowed in 1985-86 to the smallest differences ever. This is a result of higher average scores for black and Puerto Rican students and a lower average score for white students. Differences, however, are still significant: The average combined SAT score for white students in 1985-86 was 928, while the average score for black students was 718 and for Puerto Rican students, 739. At 922, the average combined score for Oriental students was only six points lower than that for white students.

Data such as this is important, because achievements of subgroups of students on the SAT is one of the benchmarks by which progress toward ensuring educational equity for all children will be measured.

Combined SAT Scores by Race

Year	Black	Oriental	Puerto Rican	White	Total
1985-86	718	922	739*	928	914
1980-81	680	942	705	910	892
1975-76	687	958	741	939	912

*Includes other Hispanic

Source: CT Department of Education

Test of Standard Written English. Since 1974-75 the SAT has included the Test of Standard Written English (TSWE) which evaluates, on a scale of 20 to 80, students' ability to recognize standard written English. It was developed to help colleges place students in freshman English courses. On this test the average Connecticut score declined by 0.6 points to 42.8 after three consecutive years of improvement. In a similar trend, national scores declined 0.1 point following four years of increases.

Test of Standard Written English
Average Scores of College-Bound Seniors
Scale: 20 to 80

	Males		Females		Total	
	CT	Nation	CT	Nation	CT	Nation
1985-86	42.1	41.9	43.6	43.2	42.8	42.6
1980-81	41.9	41.5	43.3	42.9	42.6	42.2
1975-76	42.9	42.1	44.9	44.0	43.9	43.1

Source: The College Board

Connecticut students continue to outperform their national counterparts. Female students continue to outperform males on this test, but the difference is narrowing; for 1985-86 it was only 1.5 points. Nationally, the difference was 1.3. While results in Connecticut and the nation are lower than ten years ago, they are higher than five years ago, which may indicate an improving trend.

Achievement Tests and Advanced Placement Tests. Unlike the verbal and mathematical sections of the SAT, which measure general aptitude, achievement tests measure how well a student performs in a subject area. The College Board notes that high scores on the achievement test "depend to a considerable extent on the opportunities offered in secondary school for learning the particular concepts and skills measured by the tests." In 1985-86, 10,071 Connecticut students, 35.6 percent of the SAT takers, chose to take at least one achievement test, compared to 19.4 percent nationally.

On a scale of 200 to 800, Connecticut students in 1985-86 averaged 529, down four points from the previous year. During this same period, the verbal and mathematical aptitude scores of Connecticut students taking the achievement tests remained stable. The average achievement test scores for students nationally also remained stable (at 540) for both years. Connecticut students took tests in history (American and European), computers (Pascal), English composition and literature, foreign languages (French, German, Hebrew, Latin, Spanish), two levels of mathematics, and the sciences (biology, chemistry and physics).

The College Board's Advanced Placement examinations give any high school student (not only those enrolled in advanced placement courses) an opportunity to demonstrate college-level achievement for which they may receive college credit or be exempted from required courses. In May 1986, 4,851 students from 163 public and nonpublic Connecticut schools took a total of 6,794 Advanced Placement examinations. A slight majority of the test takers, 52.1 percent, attended public schools. However, a higher proportion of students enrolled in

nonpublic schools took the tests in 1986—18.0 percent of the nonpublic school seniors and 10.6 percent of the juniors, compared to 5.0 percent of all public high school seniors and 2.2 percent of the juniors.

Advanced Placement tests are scored on a scale from 1 to 5 with most colleges granting credit for a score of 3 or higher. In 1986, 76.1 percent of the AP examinations taken by Connecticut students received a score of 3 or higher; this is a gain of 1.3 percentage points from 1985. Nationally, 68.6 percent of students scored at this level. The average scores of Connecticut public school students were higher than those of public school students nationally, but slightly lower than those for nonpublic school students in the state. While 75.7 percent of the public school test takers earned scores of 3 or higher, the national average was 67.0 percent; 76.5 percent of the state's nonpublic school students taking the test achieved scores of 3 or better.

Advanced Placement Test Participants

Year	Number of Schools	Number of Students	Number of Examinations	Percent Scores Three or Better*
1986	163	4,851	6,794	76.1
1985	155	4,533	6,202	74.8
1984	155	4,220	5,757	76.5
1983	154	3,790	5,115	76.0
1982	143	3,604	4,934	75.0
1981	143	3,570	4,817	76.0
1980	139	3,111	4,190	77.0
1979	133	2,749	3,602	77.0

*Test score scale is from 1 to 5.

Source: The College Board

College-Level Course Work. College-level course work offered for credit in 117 of 141 comprehensive public high schools in Connecticut was available to students under the auspices of The College Board Advanced Placement (AP) program; the University of Connecticut (UC); and the International Baccalaureate (IB) program. Course work also was offered in conjunction with colleges and universities located throughout the state. Seventy-four comprehensive public high schools offered AP courses while 84 offered UC course work. Enrollments totaled 8,613.

High School Graduates

After peaking at 52,586 in 1978, the total number of high school diplomas awarded annually in Connecticut has experienced a fairly consistent decline. (The figure includes graduates of local public, vocational-technical and nonpublic schools as well as recipients of General Educational Development or high school equivalency diplomas.) Much of the decline has occurred in the past two years, when the total number of high school graduates dropped from 50,152 in 1983 to 44,496 in 1985.

The biggest factor in this trend has been declining enrollments in public high schools, where the number of graduates has dropped from a high of 40,612 in 1976 to 31,880 in 1985 (a 21.5 percent decline). During this same period, the total of nonpublic high school graduates remained level (5,915 in 1975, 5,914 in 1985); the number of vocational-technical graduates rose steadily, then leveled off at slightly more than 2,600. The number of GED diplomas rose from 3,662 in 1975 to 5,216 in 1983, dropping back to 4,068 in 1985.

High School Diplomas

Year of Graduation	Local Public	Vocational-Technical*	Nonpublic	GED	Total
1985	31,880	2,634	5,914	4,068	44,496
1984	33,686	2,626	6,048	4,488	46,848
1983	36,204	2,503	6,229	5,216	50,152
1982	37,706	2,518	6,029	4,625	50,878
1981	38,235	2,410	6,021	3,984	50,650
1980	37,683	2,355	6,027	4,883	50,948
1979	39,727	2,206	6,186	4,310	52,429
1978	39,914	2,267	6,088	4,317	52,586

*Secondary-level occupational program completers, synonymous with graduates.

Source: CT Department of Education

Graduation Rate. The high school graduation rate is an estimate of the percentage of ninth graders enrolled in public schools who are graduated four years later. The rate is calculated by comparing the number of students enrolled in the ninth grade for any given year and the number of diplomas awarded to members of that class upon graduation three years later. Graduation rates are used as an indicator of the "holding power" of high schools. This statistic, when aggregated statewide, provides a good indication of the overall number of students from each class who successfully complete high school in

Graduation Rate of Public School Students In Connecticut

Year of Graduation	Number of Graduates	Number of 9th Graders Four Years Earlier	Percent Completing
1985	31,880	40,934	77.9
1984	33,686	43,322	77.8
1983	36,204	46,455	77.9
1982	37,706	49,706	75.9
1981	38,235	50,688	75.4
1980	37,683	50,447	74.7
1979	39,727	52,241	76.0
1978	39,914	51,510	77.5
1977	40,393	51,179	78.9
1976	40,612	52,430	77.5
1975	40,479	51,850	78.1

Note: It cannot be assumed that students not graduating have dropped out of school; some may be transfers, some repeated a grade.

Source: CT Department of Education

Connecticut. The graduation rate does, however, have a weakness: it provides no information about the progress of individual students through the system. It does not, for example, account for student migration, accelerated completion or mortality. The graduation rate simply describes the behavior of a cohort, namely each successive ninth grade class, but gives no information about individual members of the group. Consequently, little can be said about the turnover rate or the relative impact of such factors as transfers, retention and dropouts on the overall graduation rate of each class. Nevertheless, the graduation rate offers some very important insights.

The 1985 graduation rate of 77.9 percent for Connecticut's public high schools is essentially unchanged from the two previous years. Over the past decade, in fact, the rate has varied only moderately from a high of 78.9 percent in 1977 to a low of 74.7 percent in 1980.

Graduation Rates of Public School Minority Students In Connecticut

Year of Graduation	Overall	White	Black	Hispanic
	%	%	%	%
1985	77.9	82.5	61.7	46.2
1984	77.8	82.4	61.0	45.9
1983	77.9	81.2	62.9	50.8

Source: CT Department of Education

In 1981, there were 40,934 students enrolled in the ninth grade in Connecticut public schools. In 1985, 31,880 students graduated from these high schools, resulting in a graduation rate of 77.9 percent for the class of 1985. When graduation rates are calculated for subgroups of this class, there are clear differences in the graduation rate by race, with the rate for black and Hispanic students significantly lower than that for white. In 1983, for example, the graduation rate was 81.2 percent for white students, 62.9 percent for black students and 50.8 percent for Hispanic students. Two years later, in 1985, the disparity continued: The graduation rate for white students was 82.5 percent; for black students, 61.7 percent; and for Hispanic students, 46.2 percent.

High School Equivalency Examinations, 1975-85

Year	Number of Tests Administered	Number of Tests Passed
1985	6,482	4,068
1984	7,235	4,488
1983	7,636	5,216
1982	7,987	4,625
1981	6,588	3,984
1980	6,804	4,883
1979	7,230	4,310
1978	7,297	4,317
1977	7,772	3,877
1976	7,551	3,945
1975	6,900	3,662

Source: CT Department of Education

The graduation rate for the state's vocational-technical schools was 71.1 percent in 1985, down from 71.8 percent in 1984. As with local public school graduation rates, it cannot be assumed that students not graduating with their class have dropped out of school. Along with retention, transfers of vocational-technical students returning to their local high schools may account for part of the attrition of students from each class.

High School Equivalency Examinations. In 1985, 4,068 adults passed either all parts of the General Educational Development test or, upon retaking the test, passed the parts failed previously, thus qualifying for a high school equivalency diploma. This represents 62.8 percent of the students taking the test, slightly exceeding the ten-year average of 59.6 percent. Of all those who took the GED test in 1985, 2,406 prepared for the test in public school adult education courses; 76 percent of these students passed the tests.

Postsecondary education. An important indicator of educational outcome is the activities students pursue after they graduate from high school. Traditionally, a high percentage of Connecticut's high school graduates continue their formal education. Most high school graduates going on to higher education attend four-year colleges or

Public High School Graduates Continuing Their Education

Year of Graduation	Total[1] Graduates	Continuing Education[2] Number	Continuing Education[2] Percent	Four-Year College Number	Four-Year College Percent	Two-Year College Number	Two-Year College Percent	Vocational Program Number	Vocational Program Percent	Other Education Number	Other Education Percent
1985	31,880	21,252	66.7	14,598	45.8	4,317	13.5	1,854	5.8	483	1.5
1983	36,204	23,581	65.1	15,614	43.1	4,975	13.7	2,419	6.7	573	1.6
1981	38,577	24,199	62.7	16,338	42.4	4,706	12.2	2,565	6.6	590	1.5
1979	39,770	24,328	61.2	16,381	41.2	4,899	12.3	2,506	6.3	542	1.4
1977	40,393	24,240	60.0	15,892	39.3	5,245	12.9	2,803	6.9	300	0.7
1975	40,479	24,619	60.8	15,798	39.0	5,464	13.5	3,079	7.6	278	0.7

[1]Includes graduates from Norwich Free Academy, Gilbert School and Woodstock Academy; excludes vocational-technical school graduates.
[2]The activity of approximately five percent of the students is unknown.

Note: Percentages are percent of total graduates.
Source: CT Department of Education

Public High School Graduates in Career-Related Activities

Year of Graduation	Total[1] Graduates	Seeking Careers[2] Number	Percent	Military Number	Percent	Employed Number	Percent	Unemployed Number	Percent
1985	31,880	9,186	28.8	1,310	14.3	7,208	78.5	668	7.3
1983	36,204	10,785	29.8	1,548	14.4	7,979	74.9	1,258	11.7
1981	38,577	11,751	30.5	1,446	12.3	9,008	76.7	1,297	11.0
1979	39,727	13,040	32.8	1,406	10.8	10,383	79.6	1,251	9.6
1977	40,393	13,166	32.6	1,610	12.2	9,808	74.5	1,748	13.3
1975	40,479	13,241	32.7	1,463	11.0	9,820	74.2	1,958	14.8

[1]Includes graduates from Norwich Free Academy, Gilbert School and Woodstock Academy; excludes vocational-technical school graduates.
[2]The activity of approximately five percent of the students is unknown.

Note: Percentages are percent of those seeking careers.

Source: CT Department of Education

universities (45.8% in 1985), while a smaller percent (13.5% in 1985) go to two-year colleges. An additional 5.8 percent of 1985 graduates are enrolled in vocational education programs. Though the percentage of graduates from public high schools attending four-year colleges is at the highest level ever recorded, the actual number of such students is below the 1979 peak (1,783 or 10.9% fewer). The percentage of students attending two-year colleges, up slightly in recent years, is approximately the same as in 1975.

Female graduates are more likely to continue their formal education than are their male counterparts (70.5% vs. 62.4%). While women comprise 52.1 percent of the total number of graduates, 55.2 percent of the women continue their education.

Notable disparities are seen between minority and nonminority students. In addition to having much lower graduation rates than their white counterparts, minority graduates are less likely to continue their formal education. In 1985, while 66.9 percent of white graduates went on to some form of postsecondary education, the percentage was 52.0 for black graduates and 50.6 for Hispanic graduates.

Career-related activities. In 1985, 28.8 percent of public high school graduates sought to enter the workforce immediately following graduation. Among minority students, 31.9 percent pursued career-related activities. Of the minority students who entered some type of career-related activity, 58.7 percent found employment, 21.8 percent entered the military, and 19.4 percent was reported as unemployed. Of white students who graduated in 1985, 28.6 percent entered career-related activities as follows: 77.2 percent employed; 12.8 percent in the military, and 10 percent unemployed.

Programs

Tests measure some of what students have learned in instructional programs. Learning, however, happens in many different ways, seldom as the result of a single program or effort but more often through a combination of several programs—instructional and support—operating in synch. Consequently the outcome of specific programs may be hard to identify or quantify. The evaluation of a program's effectiveness, therefore, is often more qualitative than just the numerical data compiled from test results, with the overall success of programs discerned through the eyes of teachers, parents, and professional program evaluators.

Many programs have special purposes, e.g., to insure that all students have a nutritious breakfast and lunch, or that remedial instruction is available for all students who need help to master important skills. Other programs are designed for students with special needs, such as a physical or learning disability. Then there are programs which support local school districts in fulfilling state mandates to offer planned, ongoing and systematic curriculum in a broad range of subjects and to provide professional development opportunities for teachers, administrators and staff.

Together, instructional and support programs facilitate learning. This section of *Meeting the Challenge* describes Connecticut's programs to encourage learning for all its citizens, from early childhood through adulthood. They are the programs by which the public schools seek to approach the goal of equity and excellence.

Early Childhood Initiatives

Traditionally, instructional programs in the public schools have begun in kindergarten and lasted through grade 12. During the past five to ten years, however, respected researchers have documented that young children involved in high quality early childhood programs reap many benefits from those programs in later years.

Many educators are convinced that programs for handicapped and at-risk infants and toddlers are appropriate from birth on. The department, using federal money, has been able to fund such early intervention programs and will be seeking state money to provide additional funds to public and private agencies to support interagency programs.

A number of converging factors underscore the desirability of providing services to all preschool-age children. *Four-Year-Olds, Their Families and Public Schools*, a report developed by an advisory committee to the State Board of Education, documented the need and offered a set of recommendations to establish such programs. The committee's findings are summarized below.

- **Changing patterns of family life.** Connecticut's workforce includes more than 40 percent of the mothers with children under the age of six (an increase of 52 percent in ten years), and households headed by women increased 70 percent from 1970-80. These statistics offer demographic evidence that families need options for various kinds of support to enable them to parent effectively.
- **Birth statistics.** In Connecticut, proportionately more children are born to the minority population, which consequently is increasing more rapidly than the white population. Add to this a continued over-representation of minority children living in poverty—between 1970-80 the poverty rate for children under six in Connecticut increased by 58 percent—and we are rapidly facing a need for additional preschool services if there is to be an equitable educational opportunity for all children as they enter school
- **Research.** Studies published in the past two years show that preschool programs for disadvantaged children generate short-term IQ gains, accompanied by long-term gains in attendance, academic achievement, graduation rates and earnings, and reduction in referrals for special services. Early-intervention research continues to show benefits for work with special needs children and their families and demonstrates the value of early identification.

Child Nutrition Program

The State Department of Education serves the nutritional needs of children in both the public and private schools through its administration of several federally funded child nutrition programs.

In 1985-86, more children paid for their lunches while participation of students receiving free or reduced-price lunches declined.

Since 1980-81 the Special Milk Program has been available only to schools that do not participate in the National School Lunch Program. For the seventh consecutive year the number of students receiving paid and free milk declined, reflecting the decline in enrollment.

Lunch data reveal that nearly 80,000 children eat lunches at reduced or no cost. Many of these same children may come to school without eating in the morning. Some districts have chosen to provide breakfast but many factors have inhibited the growth of School Breakfast Programs.

Special Milk Program

Fiscal Year	Paid	Free
1985-86	23,410	2,099
1984-85	23,732	2,228
1983-84	25,323	2,745
1982-83	26,243	2,555
1981-82	26,824	2,848
1980-81	29,791	3,319
1979-80	178,709	15,893
1978-79	213,873	17,729

Source: CT Department of Education

Beginning with the 1986-87 school year, the department will provide supplemental funds for pilot breakfast programs in 32 districts where students are determined to be in the greatest financial need. It is hoped that this funding will be a positive stimulus, enabling administrators to implement a morning meal service.

School Breakfast

Fiscal Year	Paid	Free	Reduced
1985-86	554	5,949	104
1984-85	661	7,792	102
1983-84	696	8,027	90
1982-83	649	6,836	86
1981-82	647	5,161	116
1980-81	795	4,937	133
1979-80	4,460	5,714	295
1978-79	3,487	3,604	271

Source: CT Department of Education

National School Lunch

Fiscal Year	Total	Paid	Free	Reduced
1985-86	207,926	129,106	66,314	12,506
1984-85	212,447	128,403	70,725	13,319
1983-84	207,884	119,350	75,221	13,313
1982-83	206,168	117,706	74,645	13,817
1981-82	203,420	110,548	75,991	15,388
1980-81	199,044	110,398	71,775	16,871
1979-80	262,840	151,741	89,286	21,813
1978-79	279,799	170,308	87,527	21,964

Source: CT Department of Education

Although prekindergarten enrollment in Connecticut's public schools has increased slightly to 3,361 in 1985, licensed day-care centers, which numbered 1,110 in 1985 with 46,955 children enrolled, increased in January 1986 to 1,145 licensed centers with 50,215 children enrolled.

The committee made a number of recommendations to the State Board of Education that resulted in the inclusion in the board's 1987-88 budget request of six programs related to improving and expanding early childhood programs. One program, if approved by the General Assembly, would provide $3 million in new grant money as an incentive for local school districts to improve and develop programs serving prekindergarten children. This money would be designated for children most in need of assistance and awarded to programs that can become demonstration models.

Another proposal would provide $6.3 million in new grant money as financial incentive to any local school district operating an extended-day kindergarten program or planning for such a program in the 1987-88 school year.

The proposed five-year grant would reimburse local school districts on a percentage basis for personnel costs, equipment and rental space, if necessary. Funds could be used to plan and start new programs or to expand existing ones.

The number of extended-day kindergarten programs in Connecticut continues to increase. In 1985-86, 23 school districts offered extended-day or full-day kindergarten programs (from four hours up to a full school day) in one or more of their elementary schools, either as a pilot or as part of a gradual phase-in. These programs were open to all kindergarten-eligible children, i.e., those who would be five years old by January 1 of the current school year. There also are a few extended-day kindergarten programs, not represented in the count of 23 districts, that are offered only to children with needs for special education, bilingual or developmental programs. In 1986-87 at least three additional districts will provide extended-day kindergarten programs.

To assist teachers of both half-day and extended-day kindergarten programs in creating and implementing developmentally appropriate programs, the department will publish a *Guide to Program Development in Kindergarten*.

Instructional Programs, K-12

The basic curriculum for kindergarten through grade 12, prescribed in Connecticut General Statute 10-16b, must include planned, ongoing and systematic instruction in the arts; career education; consumer education; health and safety; language arts, including reading, writing, grammar, speaking and spelling; mathematics; physical education; science; social studies, including but not limited to citizenship, economics, geography, government and history; and, at the secondary level, one or more foreign languages and vocational education.

To help local school districts provide the programs, the State Department of Education provides assistance in the planning, implementation and evaluation of their curricula. Primary responsibility for this assistance rests with the Division of Curriculum and Professional Development.

Specialists in each of the subject areas consult with the staffs of individual school districts; hold meetings, conferences and workshops, and furnish materials on curriculum development. The department has begun to update its series of guides to curriculum development, a major source of information about teaching and learning in subject areas specified in the statutes. Districts use these guides in developing and evaluating programs.

Additionally, in 1986, the department collected and analyzed the results of a comprehensive survey of curriculum practices in English and reading (part of language arts), mathematics, music, physical education, science, social studies and kindergarten instruction in the state's public schools. A comprehensive analysis of the data is expected to contribute significantly to efforts to ensure equity and excellence in the schools.

A statewide program having a major effect on the elementary and middle school curriculum in mathematics and language arts, including reading and writing, is the mastery test program in grades 4, 6, and 8, described in Chapter 3. The department has offered a series of workshops around the state to help teachers and administrators analyze in depth the results of the mastery tests and provide information related to instruction that will help students achieve the mastery test objectives.

Graduation Requirements and Common Core of Learning

In 1984, the General Assembly amended the statewide standard for high school diploma to require a minimum of 20 credits, beginning for students graduating in 1988. The legislation also specified the number of credits that must be taken in six subject areas: English—4; mathematics—3; social studies—3; science—2; art or vocational education—1; and physical education—1.

In the fall of 1985, the Advisory Panel on Graduation and Course Requirements, upon reviewing mandated course offerings and the merits of an "exit test" for public high school graduation, recommended against requiring additional credits for high school graduation. The group recommended, instead, that the State Board of Education convene a broadly representative panel to identify a "common core of learning" that Connecticut high school graduates could reasonably be expected to achieve.

Accordingly, in the spring of 1986, the board established an Advisory Committee on the Development of a Common Core of Learning for High School Graduates. In the preamble to its report, the committee states:

> The Common Core establishes a vision of what Connecticut's high school graduates should know and be able to do. It represents a broad array of outcomes that should result from the entire K-12 school experience, including academic skills and knowledge, personal and social skills, attitudes and attributes. We believe the Common Core articulates Connecticut's expectations for its schools and its youth, thereby enhancing the quality and equality of educational opportunities throughout the state.

The Common Core includes specific student outcomes in three areas:

- Attributes and Attitudes—self-concept, motivation and persistence, responsibility and self-reliance, intellectual curiosity, interpersonal relations, sense of community, moral and ethical values;
- Skills and Competencies—reading, writing, speaking, listening, viewing, quantitative skills, reasoning and problem solving, and learning skills;
- Understandings and Applications—the arts, careers and vocations, cultures and languages, history and social science, literature, mathematics, physical development and health, science and technology.

Vocational Education

Vocational education affords an important option for Connecticut students. Many students elect to pursue a vocational education program that will lead to immediate employment following high school graduation. Some continue their education and training in postsecondary institutions and others take a limited number of vocational courses to acquire specific skills for personal enrichment.

Jobs for Connecticut's Future reports that by 1995 industries that supply business, professional and financial services will grow at a rate of 45 percent. Strong growth is also expected in the health, education and personal service industries. These high-growth industries will create a strong demand for professional, technical and service workers. In Connecticut, vocational education programs in the local school districts and the state-operated Vocational-Technical School System are designed to educate the employees who will help meet these needs.

Vocational education in the local schools. In the local school districts vocational education, usually beginning in the 7th grade, provides opportunities for students to acquire, improve and expand skills and knowledge needed to enter and advance in a wide variety of careers. Courses range from introductory home economics and industrial arts in the 7th grade to 12th grade courses that prepare students for entry-level employment or further education. Studies indicate that during 1985-86, 70.4 percent of all students elected one or more vocational courses with 38.9 percent electing three or more vocational courses as part of their high school experience.

Regional vocational-technical schools. The mission of the regional vocational-technical schools is to provide occupationally specific training and rigorous academic instruction to Connecticut's youth and adults.

The state's Vocational-Technical School System, consisting of 17 regional vocational-technical schools and four satellite facilities, provides intensive occupation-specific training below the associate degree level. The program is offered to youths and adults in collaboration with business, labor and community groups. Total full-time secondary enrollment for 1985-86 was 11,934, of which 11 percent was handicapped, 26 percent female, and 20 percent minority. The numbers of students in these categories increased 78.9 percent, 24.2 percent and 40.0 percent respectively since 1980.

Vocational-Technical Enrollments In Secondary Full-Time Day Programs

School Year	Total	Minority		Handicapped		Females	
		No.	%	No.	%	No.	%
1985-86	11,934	2,371	20	1,261	11	3,131	26
1984-85	12,086	2,250	19	1,176	10	3,052	25
1983-84	12,406	2,100	17	1,070	9	2,989	24
1982-83	12,324	2,045	17	989	8	2,822	23
1981-82	12,276	NA	NA	813	7	2,673	22
1980-81	11,996	1,693	14	705	6	2,521	21

Source: CT Department of Education

Academic instruction ensures that students are career-directed and also possess communications, problem-solving and citizenship skills which will allow them to be productive, adaptable, contributing individuals. The goal is to increase employability of Connecticut citizens and to stimulate economic growth by providing comprehensive training in 44 occupational areas.

Students enrolled in local high schools can take advantage of vocational-technical school programs and facilities through satellite and shared-time programs.

Nontraditional Vocational Program Completers

	Percent of Males Completing	
Traditionally Female Programs	1980	1985
Overall	15.9	23.6
Child care	1.3	0.0
Clothing Management	4.8	3.8
Cosmetology	1.2	13.8
Fashion Design	0.0	0.0
General Office	22.1	28.2
Nursing Assistant	5.6	2.8
Secretarial	2.5	7.4
	Percent of Females Completing	
Traditionally Male Programs	1980	1985
Overall	1.9	5.3
Agricultural Mechanics	26.1	4.0
Air Conditioning	0.0	0.0
Appliance Repair	0.0	10.2
Automobile Trades	2.0	4.8
Construction Trades	1.4	4.2
Electronics/Industrial Electronics	2.7	9.3
Forestry	25.0	25.0
Machine/Tool Shop	0.1	2.9
Natural Resource Renewal	10.5	0.0
Small Machine Repair	1.3	34.1
Welding/Sheet Metal	0.0	3.8

Source: CT Department of Education

They receive academic instruction in their local high schools and vocational training at one of the vocational-technical schools or at a satellite facility.

The vocational-technical schools also provide educational opportunities for adults. Cooperative programs serve apprentices, unemployed workers and other adults who need training to qualify for employment. The vocational-technical school system also seeks to serve groups with special needs, including populations not traditionally enrolled in the vocational-technical schools. New or expanded programs include mathematics labs, bilingual education for youth and adults, a program for gifted and talented students and programs in the arts and service occupations for students with disabilities.

Equity in vocational education. A goal of vocational educators is to decrease sex stereotyping by increasing the percentage of male and female students completing nontraditional vocational programs. A vocational program that is nontraditional for one sex is defined as one in which at least 80 percent of the participants are of the opposite sex. In recent years there has been measurable progress toward reversing sex stereotyping. Since 1980, the percentage of female students completing traditionally male programs has increased modestly from 1.9 to 5.3 percent, while the percentage of male students completing traditionally female programs rose from 15.9 percent to 23.6 percent.

Placement Status (February 1986) of 1985 Vocational Program Completers

	Local Education Agencies		Regional Vocational-Technical Schools	
			Secondary Level	
	No.	%	No.	%
TOTAL	16,764	100.0	2,634	100.0
Pursuing Education	8,731	52.1	513	19.5
Employed	5,021	29.9	1,585	60.2
Military	478	2.8	193	7.3
Unemployed*	379	2.3	57	2.2
Other**	2,155	12.9	286	10.8
Completers in full-time jobs related to training	3,010	18.0	1,158	43.0
Average Hourly Wage	$5.08		$5.86	

*As percent of all graduates including those not seeking employment.
**Not seeking employment or status unknown.

Students enrolled in industrial arts, consumer home economics, and in short-term, part-time, exploratory and apprentice programs not included.

Source: CT Department of Education

Program completers. During 1984-85, there were 60,382 secondary students enrolled in occupational programs. Follow-up studies in February 1986 indicated that 19,398 of these students completed their programs in 1985. The largest number of completers (10,625 or 54.8 percent) was in the business and office program category.

The same studies found that of the 7,042 secondary program completers who were available for employment, 6,606 or 93.8 percent found jobs. Of those who were working in February 1986, 63 percent were employed full time in a field related to their training.

Other options chosen by 1985 vocational program completers on the secondary level included additional education (47.7 percent) and the military (3.5 percent).

Unemployment Rates* of High School Graduates vs Statewide Rates

	Percent Unemployed			
	High School Graduates		Statewide	
Year	Local Education Agencies	Regional Vocational-Technical Schools	16-19-year-olds	Total
1985	8.5	3.5	14.7	4.9
1984	11.8	4.0	13.3	4.6
1983	13.6	3.1	16.5	6.0
1982	13.3	8.2	18.3	6.9
1981	12.6	6.1	17.2	6.2

*Excludes military employment

Source: CT Department of Education

While both statewide unemployment and unemployment of 16- to 19-year-olds increased between 1984 and 1985, unemployment for high school graduates of both the vocational-technical schools and the local education agencies declined. The unemployment rate for 1985 graduates of public high schools is 8.5 percent; for graduates of the regional vocational-technical schools the rate is 3.5 percent.

Collaborative Vocational Programs

The outreach and effectiveness of a number of vocational programs can be attributed to their collaborative nature, with several agencies or organizations joining forces to serve a particular need.

Jobs for Connecticut Youth. Sponsored by the State Department of Education since 1981, Jobs for Connecticut Youth (JCY) has marshalled state and local resources to confront barriers to employment for economically and/or educationally disadvantaged youth and to provide employers with an adequately prepared workforce. In six areas—Bridgeport, Hartford, New Haven,

Northeast, Stamford/Norwalk and Waterbury—representatives from local business, education, employment and training, organized labor and public service organizations formed area action teams to plan, coordinate, fund and evaluate youth programs. The intent is to make maximum use of existing resources, avoid duplication of effort and secure community cooperation.

A major focus of JCY is to improve the system through which services and training programs are provided for at-risk youth. On a state level, the goal of JCY is to effect closer coordination with other state agencies which serve such youth.

In 1985-86, 31 JCY programs served a total of 1,632 at-risk youth. These economically and/or educationally disadvantaged youth, 14 to 21 years of age, in or out of school, included dropouts, teen parents, individuals with disabilities, minorities and individuals with limited-English-proficiency. JCY programs are diverse, reflecting unique needs identified by each region. Primary emphasis has been on providing computer-assisted remedial instruction, job search skills, transition-to-work assistance, classes in English as a second language, vocational skill training and basic skills instruction.

Job Training Partnership Act (JTPA). The Bureau of Employment and Training in the Department of Education administers the Governor's State Education Coordination and Grants program under the Job Training Partnership Act. The available resources provide employment and training services for economically disadvantaged youth and adults and facilitate the coordination and delivery of services among and between public educational agencies and the broader employment and training community. During the 1985-86 program year, 22 grants amounting to $1,050,630 were provided to local boards of education and state community colleges. Program activities were conducted in four general categories: basic skills, pre-employment, occupational skills, and basic skills coupled with a work experience component. In several programs, community-based organizations provided the services to participants under contract with local schools and colleges. The 1,161 participants included 475 youth and 686 adults. Approximately 83 percent of the participants successfully completed the programs in which they enrolled at an average cost of $1,092 per completion.

Vocational Education Grants for Excellence (VEGE). In 1986, grants were awarded to five collaborative groups to support training programs for adults, single-parent homemakers, out-of-school youth and the disadvantaged who are trying to enter the labor force. The grants ranged from $200,000 to $350,000 in federal dollars, with the collaborative groups providing matching funds of $100,000 to $300,000. Thus, a total of $2,307,907 was available for the first year of the VEGE effort. Each grant is expected to continue over a three-year period, with financial involvement by the State Department of Education gradually declining. By the fourth year the total cost of each program will have been assumed by the collaborating institutions and agencies. Grant monies have been made available through the Carl D. Perkins Vocational Education Act, Vocational Rehabilitation and Special Education funds, representing the collaboration of three divisions in the State Department of Education.

Adult Education

Paralleling the urgent need for early childhood education documented at the beginning of this chapter, there also is a growing need for more and better adult education. The reasons are multiple, going beyond the fact that adults are retiring earlier and living longer. Because of the rapidly changing job market, many employees must acquire new job skills if they are to continue working. The number of functionally illiterate adults whose basic skills are not adequate for even entry-level jobs is greater than previously realized, and the number of teenage parents who need help to continue their education is increasing.

Public school adult education, now in its second century, continues to provide basic skills programs to youths and adults 16 years of age and older who are not enrolled in a regular school program. Basic skills programs include classes in Americanization, English for limited-English-proficient adults, elementary and survival skills, and secondary school completion, including the General Educational Development (GED) high school equivalency testing program.

The department also is responsible for the approval and monitoring of approximately 100 postsecondary and occupational schools and branches. These schools provide instruction leading to, at minimum, entry-level employment skills in many fields, including business, computers, automotive, dog training, modeling and acupuncture. The department also administers a student protection fund which reimburses students for tuition if a private occupational school ceases to operate. Prescribed contributions from the schools are deposited regularly to the fund. The Bureau of Adult Education also is responsible for approving programs at 295 educational institutions, so that veterans and other eligible persons may receive veterans' benefits.

Adult education's major thrust, however, continues to be basic skills. Connecticut General Statute Section

Profile of Mandated Adult Education Populations

	Age							
	16-24		25-44		45-59		60+	
Year	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1985-86	19,271	41.0	21,449	45.6	5,150	10.9	1,183	2.5
1984-85	17,839	41.1	19,954	46.0	4,503	10.4	1,087	2.5
1983-84	16,762	40.8	18,244	44.4	5,161	12.6	897	2.2
*1982-83	15,762	39.4	17,599	44.0	4,840	12.1	793	1.9

*Age not available for all students

	Race/Sex						
Year	American Indian	Asian/ Pacific Islander	Black	White	Hispanic	TOTAL	Percent Female
1985-86	119	4,110	9,604	20,620	12,600	47,053	57.6
1984-85	107	3,469	8,855	18,654	12,302	43,383	56.9
1983-84	114	3,440	8,866	17,980	10,664	41,064	54.3
1982-83	93	2,865	8,489	16,337	12,195	39,979	53.1

Source: CT Department of Education

10-69 requires that every local or regional board of education provide basic skills instruction or that it make cooperative arrangements with another board of education or regional educational service center to do so.

During the past four years, approximately 80 programs (offered by local school districts, community-based organizations, and regional educational service centers) have provided adult education basic skills programs to more than 170,000 individuals. In 1985-86 enrollments exceeded 47,000 adults.

As enrollments have increased, so has awareness of the needs of undereducated adults for easier access to programs. Four regional programs in rural areas provide one example of improved services.

Other innovative programs, operative or planned, take their initiative from the strategic plan for adult education accepted by the State Board of Education in 1985. The General Educational Development home study model has proven to be a successful vehicle for enabling adults who cannot attend classes in a traditional school setting to enroll in a GED preparation program. Additionally, a pilot project in Middletown is developing a credit high school diploma program which validates adult experiential learning and provides both traditional and nontraditional learning opportunities. Legislative changes during 1986 now permit state funding to be used to assist local school districts and other program providers in subsidizing transportation and child care, two formidable barriers to participation for adult learners.

A major new initiative requires that all adult education programs be competency-based by 1990. This will not only provide for greater program accountability but will also improve services by combining basic skills instruction with real life competencies. A comprehensive series of training and support systems has been designed to ensure that the transition to a competency-based educational process is successful.

Other major training efforts will center around revamping GED preparation programs. The more rigorous demands of the GED examination, effective in March 1988, will require programs to prepare students more thoroughly. For example, the revised examination will require for the first time that all students produce a writing sample.

During 1985, at the request of the State Department of Education, the State Library, and the Literacy Volunteers of Connecticut, Governor William A. O'Neill appointed a Coalition for Literacy to attack the problem of adult illiteracy in Connecticut. Goals are to reduce illiteracy significantly, provide education for the structurally unemployed, and to improve life for undereducated adults.

The department's efforts to collaborate with other state agencies in the Job Connection Program is an important step. Through Job Connection, the department cooperates with the Departments of Income Maintenance, Human Services, and Labor in providing educational and job training services that afford Connecticut's welfare recipients opportunities for economic self-sufficiency. Additional challenges are attracting professional staff capable of meeting the needs of undereducated adults and expanding the scope of services.

Learners With Special Needs

Substantial amounts of time and energy are devoted to improving educational opportunities for learners who need some form of special help in order to achieve their full potential. Most of these programs are administered by the Division of Education Support Services and the Division of Rehabilitation Services.

Compensatory education. Under the state's Education Evaluation and Remedial Assistance Act, school districts are required to use assessment results for instructional improvement, identify individual students in need of remedial assistance, provide remedial assistance to identified students, and evaluate instructional programs in basic skills.

Compensatory education programs supported through Chapter 1 of the federal Education Consolidation and Improvement Act, together with the state's Education Evaluation and Remedial Assistance Act, provide local school districts with funding to meet the needs of educationally disadvantaged children. In 1985-86 state and federal funding for grants to local school districts totaled $41,772,874. Districts use funds primarily to support supplementary programs in remedial mathematics, reading and language arts for both public and nonpublic school students.

In mathematics and reading, normal curve equivalent (NCE) gains have exceeded the +5 NCEs considered to be evidence of meaningful educational growth. In mathematics there was an 18 percent increase in achievement growth from +6.67 NCEs (1981-82) to +7.85 NCEs (1983-84).

While enrollment in compensatory education programs dropped from a high of more than 60,000 in 1979-80 to approximately 44,000 in 1982-83, it moved back up to 55,405 by 1984-85. This represents ten percent of the total enrollment in both public and nonpublic schools.

In comparing Connecticut's compensatory education staffing patterns to the nation's, in 1983-84 Connecticut employed a lower percentage of teacher aides (36 vs 41 percent); a higher percentage of teachers (49 vs 47 percent); the same percentage of administrators (3 percent), and other staff (12 percent).

Federal and state guidelines and procedures for planning, monitoring and evaluating compensatory education programs have been consolidated by the State Department of Education. During 1985-86, one-third of the school districts were monitored for compliance with these consolidated guidelines under the state's Program Compliance Review procedure.

Priority School District Program. The year 1985-86 was the second year for the Priority School District Program, which is designed to provide additional state aid to those districts with the greatest need to improve student achievement. Districts participating included Bridgeport, Derby, Eastford, East Haven, Hartford, Killingly, Middletown, New Britain, New Haven, New London, Norwalk, Plainfield, Stamford, Waterbury and Windham. Evaluators from the University of Connecticut prepared a statewide evaluation of 1985-86, after reviewing each of the 15 local evaluation reports submitted by the districts.

During 1985-86, the 15 priority school districts established 69 goals with 122 specific objectives and approximately 779 specific activities. By the end of the school year, 89 percent of the objectives were considered to be "achieved" or "achieved beyond expectations," and 11 percent were "partially achieved." Emphasis, among a wide range of objectives, was on staff development to build more effective instruction and instructional supervision; curriculum development in reading, mathematics, language arts, computer education and critical thinking; school effectiveness activities to improve school climate and home-school relations; and building the district's capacity to increase student attendance, reduce dropouts and improve planning and evaluation. The statewide evaluation report lists 128 major accomplishments attributable to the Priority School District Program.

Neglected and delinquent. Children who are institutionalized for neglect or delinquency often fail to achieve much academic success in school. These children receive services through the school district Chapter 1 program. In addition, in 1985-86, $1,127,146 was awarded to state correctional institutions and state institutions for neglected and delinquent students. These institutions served nearly 1,400 young adults under the age of 21.

Number of Students Eligible for Programs for Neglected and Delinquent Children

	State*			Local	
Year	Neglected	Delinquent	Adult Correctional	Neglected	Delinquent
1986	37	126	1,365	548	533
1985	41	93	1,314	620	449
1984	35	58	1,259	621	419
1983	47	58	1,263	580	523
1982	34	24	1,008	603	506
1981	40	14	573	822	310
1980	37	12	971	782	298
1979	52	77	749	684	262
1978	54	135	695	531	77
1977	56	135	676	562	69

*The Department of Children and Youth Services provides programs for neglected at the Albert P. Redway School, Warehouse Point, and for delinquent at the Long Lane School. The Department of Correction runs the program for institutionalized young adults 16 to 21 years old.

Source: CT Department of Education

Overall, students in Connecticut institutions, both under and over age 21, did not perform as well as students statewide in mathematics, language arts, reading and writing. Achievement comparisons between 84 students under 21 versus 74 students over 21 years of age reflected the fact that those over 21 showed slightly better performance in mathematics, language arts and writing, while those under 21 showed higher performance in reading.

Achievement by Students in Correctional Institutions on Basic Skills Proficiency Test

October 1984

		Percent of Students At or Above SLOEP*		
	Statewide N = 38,372	Department of Correction N = 158		
Subject		Total	Under Age 21	Age 21 and Over
Mathematics	90.4	58	55	62
Language Arts	96.3	77	74	80
Reading	97.3	77	82	72
Writing	93.2	30	28	32

*Statewide level of expected performance.

Source: CT Department of Education

Migrant Education. The Connecticut Migratory Children's Program offers a wide range of services to eligible migrant students. Services include tutorial instruction in basic skills, health and social services, career/vocational counseling and referral, and parent involvement activities.

In 1985-86, 12 communities, 7 of which were priority school districts, participated in the migrant program. An estimated 3,612 students were served. It is anticipated that 3,900 students will be served in the migrant program during 1986-87.

Migrant Programs

Fiscal Year	Districts	Students	*NCE Achievement Gains Reading	Mathematics
1984-85	14	3,841	+3.8	+1.8
1983-84	15	3,671	+3.9	+1.5
1982-83	14	3,536	+2.9	+3.8
1981-82	13	3,509	+6.2	+5.1

*Normal Curve Equivalent

Source: CT Department of Education

Students in migrant programs continue to demonstrate NCE gains in both reading and mathematics, although these gains are less than the +5 points considered meaningful.

Bilingual Education. State legislation requires school districts to provide bilingual education programs if, in any school, there are at least 20 limited-English-proficient students whose dominant language is other than English. October 1, 1985, data reported by school districts indicate that a total of 10,672 limited-English-proficient students are eligible for state-mandated bilingual education programs during the 1986-87 school year. This is the highest number since 1978 and continues the general trend of annual increases in bilingual enrollment.

Number of Students Eligible* for State Funded Bilingual Education Programs

Language	1977	1978	1979	1980	1981	1982	1983	1984	1985 No.	1985 %
Albanian	0	0	21	25	0	0	0	0	0	-
Cambodian	0	0	0	0	66	123	166	139	139	1.3
Greek	43	40	66	20	22	0	0	0	0	-
French Creole	0	0	0	0	0	24	0	22	44	.4
Italian	183	210	54	109	50	64	40	37	37	.4
Laotian	0	0	33	72	174	209	141	99	97	.9
Polish	53	66	35	36	50	44	50	28	45	.4
Portuguese	428	500	480	455	446	336	286	236	164	1.5
Spanish	9,698	10,826	9,328	8,836	8,595	8,864	8,990	9,292	10,074	94.4
Vietnamese	0	0	0	47	90	163	122	89	72	.7
TOTAL	10,405	11,642	9,997	9,600	9,649	9,827	9,795	9,942	10,672	100.0

*Bilingual education programs serve students in schools with at least 20 students who speak a particular language and who have demonstrated limited English proficiency. Eligible students are served in the subsequent academic year.

Source: CT Department of Education

An analysis based on October 1985 data for 10,672 students with limited-English-proficiency found 94 percent to be Spanish-dominant. The remaining six percent was comprised of seven other linguistic groups. The number of students eligible for programs in Cambodian, Laotian and Vietnamese grew from zero in 1978 to 495 in 1982 and 308 in 1985.

In addition to the 10,672 limited-English-proficient students who are eligible for state-mandated bilingual education programs during school year 1986-87, a total of 857 other limited-English-proficient students were identified. While school districts may provide some form of program for these students, they are not required to do so by state law, since there are fewer than 20 in any one school.

There are also approximately 14,000 students whose proficiency in English has not been determined.

In 1984-85 the total expenditure for bilingual programs in Connecticut was $22.04 million, with the state providing 8.2 percent of the total.

In the school year 1984-85, 757.58 full-time equivalent staff members, including 10.97 administrators, were assigned to bilingual education programs.

Staffing Patterns in Bilingual Programs Full-Time Equivalents (FTEs)

Staff	Total (FTEs)
Administrators	10.97
Teachers	527.55
Aides	174.50
Support Service	24.18
Clerical Staff	11.38
Other	9.00
TOTAL	757.58

Source: CT Department of Education

In March 1986, the first statewide evaluation of state-mandated bilingual education programs in Connecticut was completed. The report presented findings, conclusions and recommendations on the basis of the student and program data for the school year 1984-85. Among the findings:

- Elementary students exiting the programs displayed strong language proficiency and English achievement scores at the elementary grades but much lower at the middle and high school grades.
- Students scheduled to continue in the programs performed reasonably well on Spanish achievement measures.
- English achievement results for continuing students were low, reflecting the students' limited experience with English. Most of these students had been enrolled in the programs for three years or fewer.
- The statewide student/teacher ratio was approximately 21:1 with district ratios varying from 8:1 to 39:1.

In response to the evaluation findings, a series of state-level initiatives was taken to improve Connecticut's programs so that the academic achievement and English proficiency levels of limited-English-proficient students will increase.

First, a statewide task force met to review the 1984-85 evaluation findings and current state requirements and to propose program, fiscal and legislative changes. Second, summer school programs in grades K-8 were offered to bilingual education students in need of remedial education. Third, seven summer institutes provided 150 bilingual education administrators and teachers with current research, strategies and materials that have proven effective in the instruction of limited-English-proficient students. Fourth, the State Board of Education, in its budget

request for 1987-88, asked for a significant increase in funding so that the necessary resources can be allocated for the operation, evaluation, monitoring and improvement of these programs.

Number of Local Public School Districts With Gifted and Talented Programs

Fall of School Year	Level[1] Elementary	Middle/Jr. High	High School	No. of Districts with at Least One Program
1985	145	84	36	156
1984	137	80	32	139
1983	127	76	29	135
1982	121	72	27	133
1981	114	68	26	127
1980	109	63	24	122
1979	91	48	19	105
1978	77	42	20	92
1977	57	33	18	71
1976	46	28	12	62

[1]Of the state's 165 school districts, 158 have elementary schools, 125 have middle/junior high schools and 117 have high school children.

Source: CT Department of Education

Special Education. In 1985-86, there were 77,792 students served in special education programs in Connecticut. The increase over previous years is due to expanded services and increased reporting of gifted and talented students. During 1985-86, 156 of the state's 165 school districts (94.5%) had at least one program for gifted and talented students. Of the districts with elementary grades, 145 (91.8%) offered programs, as did 84 (67.2%) of those with middle or junior high students and 36 (30.8%) of those with senior high students.

Special Education Students

Primary Impairment	Percent of All Students 1977-78	1985-86
Autistic	-	0.03
Hearing Impairment	0.14	0.17
Learning Disabled	3.41	6.22
Mentally Retarded	1.34	0.98
Multihandicapped	-	0.19
Neurological Impairment	0.07	0.15
Orthopedic Impairment	0.09	0.06
Social/Emotional Maladjustment	1.47	2.76
Speech Impairment	2.30	2.56
Vision Impairment	0.04	0.11
Other Health Impairment	0.05	0.06
Uncategorized	0.34	0.50
TOTAL	9.25	13.80

Source: CT Department of Education

Excluding gifted and talented students and pregnant students from the totals, the number served in other special education programs during 1985-86 was 982 below the 1981-82 peak of 66,589. The percentage of all students served increased from 9.3 percent in 1977-78 to 13.8 percent in 1985. Learning disabled students comprised 6.2 percent of the school population.

Transition to Employment

There is increased interest in school-to-work transitional services and programs for students with disabilities who are preparing to leave school. The State Department of Education is committed to the development of a comprehensive system of vocational preparation and transitional services to assist persons with disabilities.

Evidence from various studies, including a Harris Poll, suggests that many handicapped students, even those with severe handicaps, are achieving higher degrees of independence by obtaining jobs upon graduation.

Statistics compiled by the Connecticut State Department of Education for the 1985-86 school year indicate that there were 161,511 students enrolled in vocational programs by local school systems. Of these, students with disabilities numbered 19,457 or 12 percent of the total enrollment.

Handicapped Student Enrollment in Vocational Programs in Local Education Agencies, 1985-86

Program Area	Handicapped Enrollment	Percent of Handicapped
Occupational Programs		
Agriculture	287	1.5
Business/Office	1,022	5.3
Health	181	0.9
Marketing/Distribution	106	0.5
Occupational Home Economics	676	3.5
Trade and Industrial*	3,135	16.1
Nonoccupational Programs		
Consumer Home Economics	2,119	10.9
Industrial Arts	6,847	35.2
Other**	5,084	26.1
TOTAL	19,457	100.0

*Includes Cooperative Work Experience/Diversified Occupations.
**Includes Interpersonal Skills—Vocational, Basic Vocational Skills, Work Study, Barbering and Cosmetology.

Source: CT Department of Education

Connecticut has undertaken a number of initiatives to help its students with disabilities adjust to the world of work.

Policy Academy. Connecticut's low unemployment rate of less than five percent will, according to current projections, cause a labor shortage within the next ten years; signs of the coming shortage are already evident.

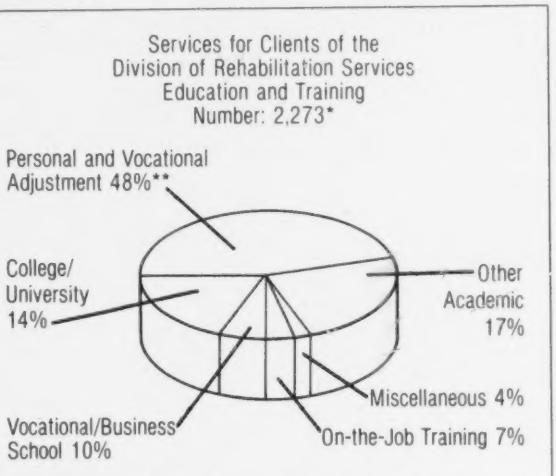
Governor O'Neill, recognizing the potential within the state's handicapped population to ease a future shortage, is supporting programs such as the Connecticut Policy Academy on Employment of the Handicapped. The Academy is designed to bring together all essential state agencies that could improve the opportunities for individuals with handicaps to gain employment.

Connecticut's Data-Based Model (CDBM). The goal of this project, developed with the University of Connecticut, is the integration of children and adolescents with severe handicaps into community schools by employing data-based teaching procedures, state-of-the-art techniques in curriculum selection, student assessment, classroom management, interdisciplinary services and evaluation of student programs. CDBM is sponsored by the Department of Education in conjunction with the University of Connecticut School of Education, two regional educational service centers and a local education agency.

Pathways to Employment. Over the past two years staff members on this project have assisted local school districts to develop collaborative services for the successful transition of students with disabilities into the world of work.

Vocational Rehabilitation

The mission of the Division of Rehabilitation Services (DRS), formerly the Division of Vocational Rehabilitation, is to assist individuals with disabilities to prepare for productive work consistent with their abilities and, to the greatest degree possible, for self-sufficiency in their personal lives. The division was reorganized and restructured during the past year to increase its efficiency and accountability. Its name was changed to reflect more accurately its comprehensive services related to vocational rehabilitation, independent living and Social Security disability determination.

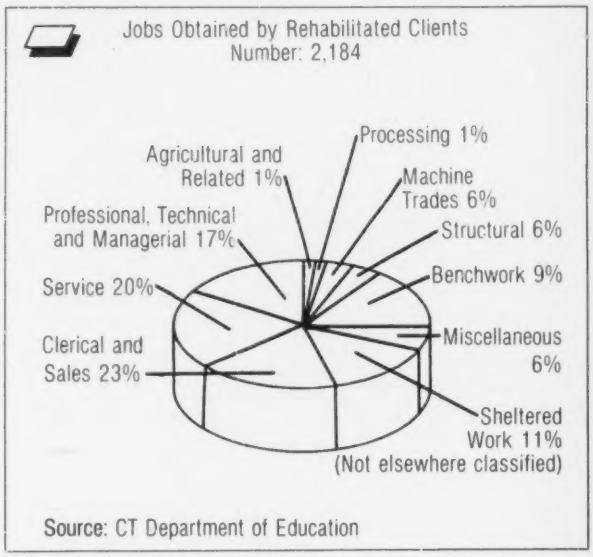


*Includes cases closed as rehabilitated as well as clients who did not complete the program.
**Training to develop appropriate work behaviors and attitudes.

Source: CT Department of Education

In 1985-86 the division served nearly 15,400 persons with disabilities. Services to clients included medical and vocational evaluation, physical and/or mental restoration, guidance and counseling, training, job placement, and postemployment services. Of eligible clients whose cases were closed (including those rehabilitated into employment as well as those who did not complete the rehabilitation program), nearly 2,300 participated in educational and training programs at vocational and business schools, postsecondary institutions, and on-the-job training.

A total of 2,184 clients—48 percent of whom, according to U.S. Department of Education criteria, are severely disabled—were rehabilitated. An estimated 83 percent of all rehabilitated clients entered the labor force. The remaining 17 percent was placed as homemakers, unpaid family workers, in sheltered workshops or in their own businesses. Approximately 43 percent of rehabilitated clients obtained employment in clerical, sales and service occupations, while 17 percent was placed in professional and technical occupations, nine percent in industrial benchwork, six percent each in structural occupations and machine trades, one percent each in processing trades and agricultural jobs. The remaining six percent found jobs in miscellaneous occupations while 11 percent found sheltered work not elsewhere categorized.



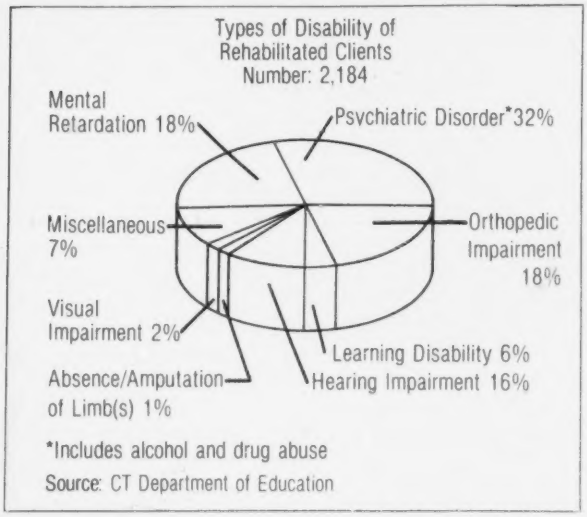
Source: CT Department of Education

The most common disability among rehabilitated clients was psychiatric disorders (32%), followed by orthopedic impairment and mental retardation (18%), hearing impairment (16%), learning disability (6%), visual impairment (2%), and amputation/absence of limb(s) (1%). Seven percent had miscellaneous disabilities, including, for example, cardiac and neurological disorders.

Over the past five years, the number of referrals to the Division of Rehabilitation Services fluctuated only slightly, as did the number of individuals accepted as clients and the number rehabilitated.

Disability Determination Services processed more than 24,000 claims for Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) disability benefits. During 1985-86, 12,506 individuals

were approved for benefits, with an average processing time of 81.6 days; $228 million in benefits was provided. SSDI and SSI recipients who are expected to benefit in terms of employment from vocational rehabilitation services are referred to the Bureau of Client Services.



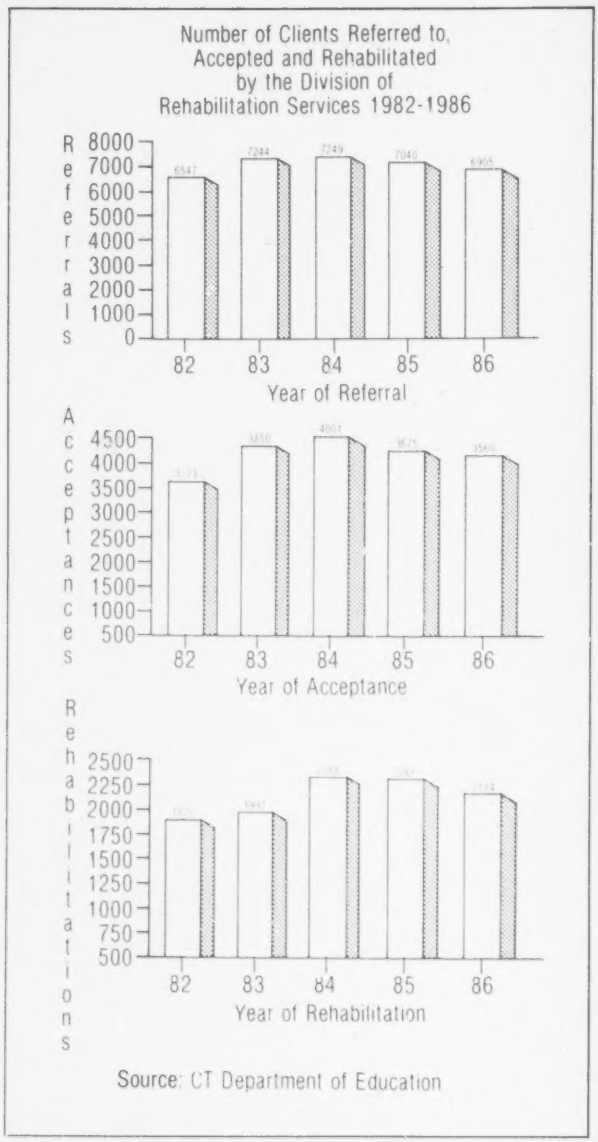
Transition to the world of work. The emphasis is on assisting clients to make a successful transition from the period of rehabilitation and training to the world of work, particularly competitive employment and independent living. The division developed a tracking system to monitor the progress of clients at on-the-job training and transitional employment sites in business and industry. Grants totalling $265,000 were distributed to eight nonprofit agencies to establish transitional employment sites and/or supported employment slots in business. Job clubs in five district offices continued to assist clients in obtaining and maintaining employment.

With increased federal funding, independent living services to individuals with severe disabilities were expanded. The state's two Centers for Independent Living in Bridgeport and Hartford received more than $460,000 in grants to diversify and enhance services to increase the functional independence of this population. A coordinator for independent living services was hired to oversee services to persons with severe disabilities not currently eligible for vocational rehabilitation services, to increase their functional independence and employment potential.

Persons with traumatic brain injuries frequently require diversified and extended services in order to achieve sufficient stability to be eligible for the vocational rehabilitation program. To serve this population more effectively, during 1986-87 a special program will provide specialized cognitive retraining and vocational adjustment services.

Cooperative Service Delivery

Many projects are cooperative ventures, some reaching out to youth who are just completing high school. Two pilot projects strengthened the link between the state agency and local education agencies by facilitating the



school-to-work transition for students with disabilities. Project Test, a two-year project in cooperation with the Capitol Region Education Council, established interdisciplinary transition teams in six Hartford-area towns. As a result, individualized transition plans for postsecondary training, employment and independent living were developed for 40 students. In another regional pilot project, three DRS counselors work with secondary schools in Hartford, West Hartford, Bloomfield, and Wethersfield to insure that vocational planning for students with disabilities begins early in secondary school and continues beyond graduation.

Often the most effective service delivery involves interagency action. The Departments of Mental Health, Mental Retardation and Education have agreed to establish a pilot program to coordinate case planning, management and funding, with a goal of helping clients with severe disabilities to work in supported and transitional employment settings in the private sector..

5 Finance

[There is a Constitutional] . . . requirement that the state provide a substantially equal educational opportunity to its youth in its free public elementary and secondary schools."

Connecticut Supreme Court
Horton vs Meskill, 1977

Quality education—the learning opportunities to which all children are entitled and to which Connecticut's Board of Education is committed—costs money. While money alone is not a guarantee of quality education, such education clearly cannot be provided without it.

The level of funding in Connecticut and the way in which available resources are allocated reflect both the state's commitment and its priorities. Adequate financial support for the public schools and the choice of programs and services to which the dollars are directed are critical factors in the achievement of equity and excellence.

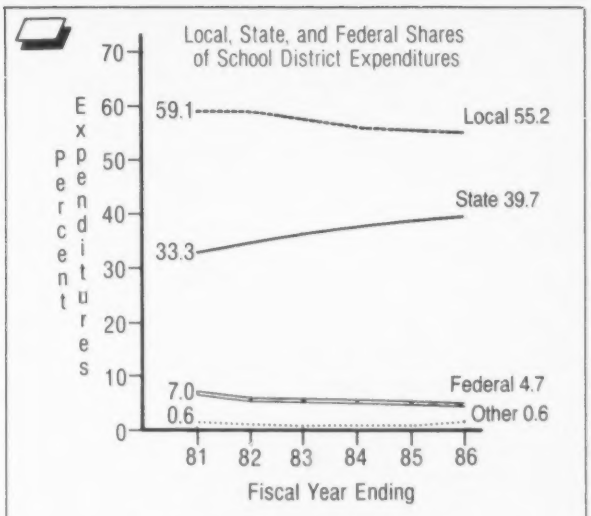
Sources of Funds

Public elementary and secondary education in Connecticut is supported by a mix of federal, state and local revenues.

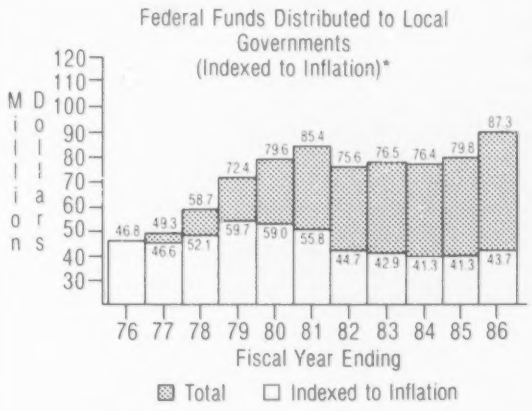
Since 1980-81, the state share of all expenditures for public elementary and secondary education has increased steadily. During the same period, the federal share of educational expenditures has declined slightly. The local share of educational expenditures has also declined, but local governments continue to provide the majority of the funding for education.

The shift in the balance of state and local funding is the result of legislation in the 1970s, following the *Horton vs Meskill* case, and of the State Board of Education's advocacy of state support of public education equal to the funding provided by local school districts. Federal funds, after a period of increases in the 70s, have remained relatively constant since 1980, representing a drop in real dollars adjusted for inflation.

In an April 1977 decision of *Horton vs Meskill*, the Connecticut Supreme Court declared that it is the state's responsibility to provide "a substantially equal educational opportunity" for all public school students, regardless of town residence. Over-reliance on local property taxes, the court ruled, discriminates against pupils in

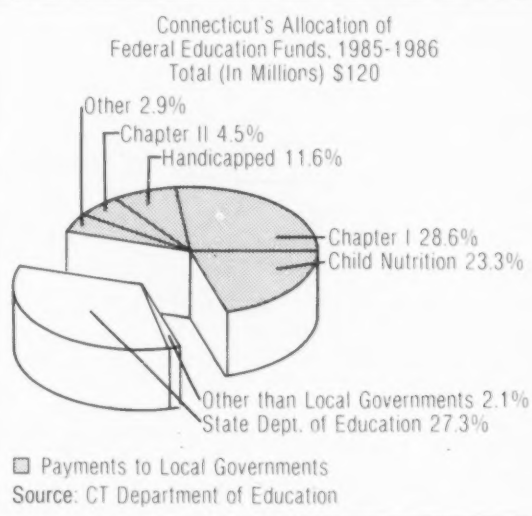


Source: CT Department of Education



*Indexed Figures Are in 1976 Dollars

Source: CT Department of Education



Source: CT Department of Education

lower-wealth towns, for whom the quality of education is "narrower and lower" than that available in wealthier communities able to spend more.

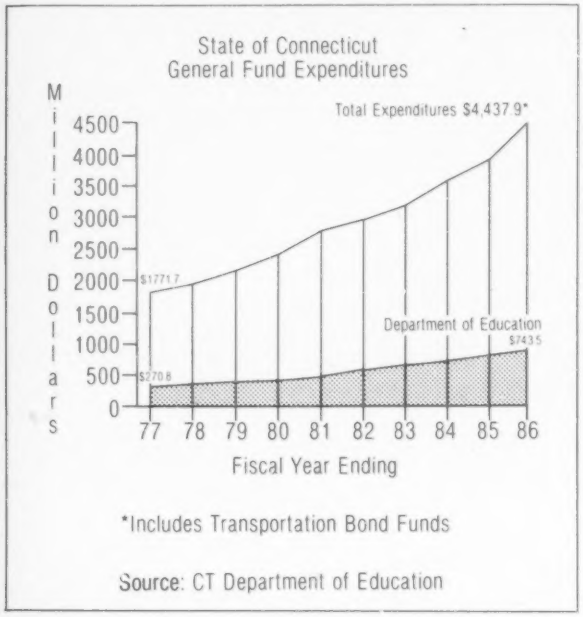
In January 1979 the State Board of Education adopted a ten-year goal to increase state aid to a level at least equal to local revenues for public elementary and secondary education. In the same year, the Connecticut General Assembly, in response to the court decision, enacted legislation providing for education equalization aid to be distributed to the cities and towns in Connecticut through a guaranteed tax base (GTB) formula.

Progress has been made in moving toward the 50-50 funding goal. As the graph shows, the state share of expenditures for public elementary and secondary education in 1985-86 was 39.7 percent of total expenditures, up from 33.3 percent in 1980-81 and 29.8 percent in 1978-79, the year the State Board of Education established the 50-50 goal. The local contribution has decreased accordingly, while other revenues have remained fairly constant.

General Fund Expenditures

In dollars, State General Fund Expenditures for public elementary and secondary education increased from $372.2 million in 1979-80 to $743.5 million in 1985-86, an increase of 99.8 percent. During this same period, the consumer price index increased 48.2 percent.

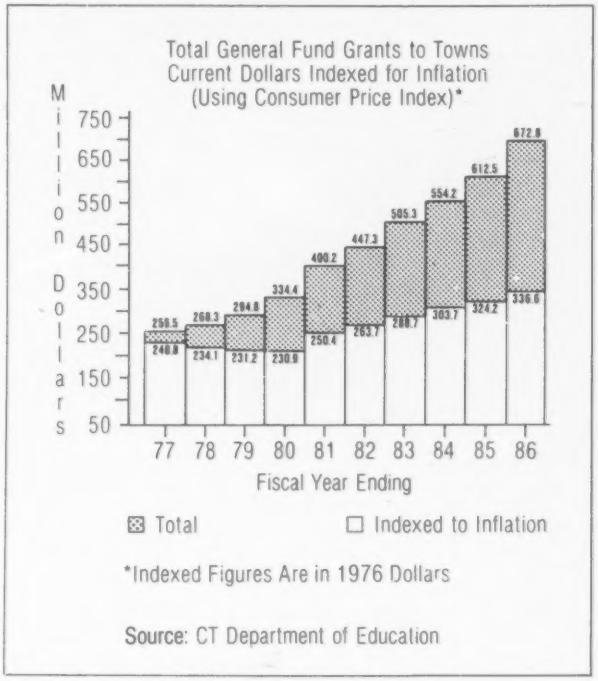
As a portion of the State General Fund budget, expenditures for public elementary and secondary education have risen since 1975-76 from 16.1 percent to 16.7 percent in 1985-86. During this period, the education budget went up due to a combination of rising expenditures for the education equalization grants to towns, additional funding for the teachers' retirement system, and increasing emphasis on the provision of equal educational opportunity for all students, as well as inflation. However, these increases were about proportional to increases in other state expenditures and therefore increased only slightly as a percentage of the total budget.



Grants to Towns and School Districts

Nearly 92 percent of the department's budget is used for grants to support instructional programs and services in local educational agencies. Six percent supports the state Vocational-Technical School System, operating 17 regional vocational-technical high schools and providing programs for nearly 20,000 students throughout Connecticut. Approximately two percent supports state services and management.

The department organizes its grants into two major categories: grants going directly to towns and school districts, and other grants or payments to organizations providing educational programs and services.

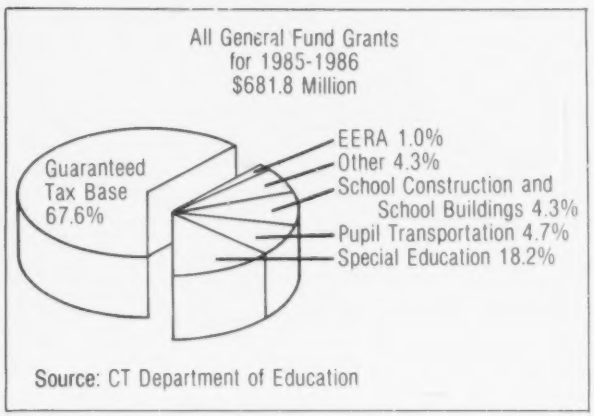


The largest grant to towns—and the largest program in the Department of Education budget—is the education equalization aid distributed through the guaranteed tax base (GTB) formula. The GTB grants are disbursed according to each town's property/income wealth, local effort to support education and educational need, using three-year-old data as the basis for computing each year's GTB grants.

In 1985-86, $460.9 million was disbursed to Connecticut towns under the GTB formula. In its budget request for 1985-86, the State Board of Education had for the first time proposed funding for equalization aid to towns that would meet its goal of 50-50 state and local sharing.

Other major state grant programs, now funded on an equalizing basis but distributed to school districts rather than to towns, include transportation, school construction, adult and special education. Under these grant formulas, low-income wealth districts receive more aid than wealthy districts; over 95 percent of all state grants for education are equalized in this way. These grants to school districts, combined with the GTB grants to towns, accounted for $645.9 million in 1985-86. All other grants added an additional $35.9 million for a total of $681.8 million. Even when indexed for inflation, the level of funding for all grants has been increasing steadily since 1980.

Several recent developments, including the board's decision to seek additional funding to meet the long-range goal of 50 percent state and 50 percent local funding (exclusive of federal dollars), may affect the GTB formula and future appropriations under it.



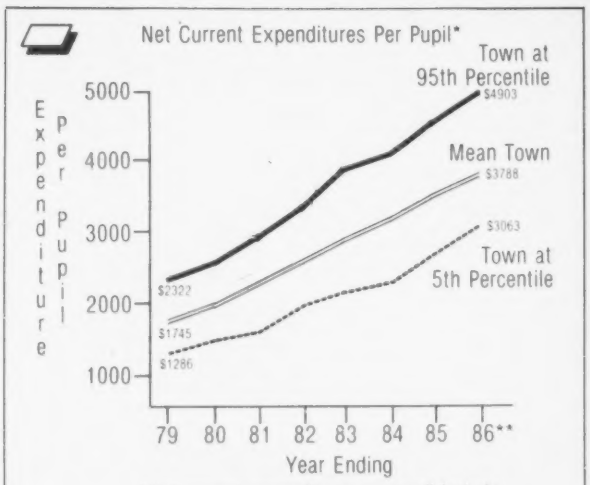
Source: CT Department of Education

Disparities Continue

Despite the equalizing intent of the GTB formula and other state grant programs, substantial disparities in educational expenditures continue to exist among Connecticut towns, as noted by the State Supreme Court in 1984. Equality of educational opportunity for all public school students still remains a central, but elusive, goal.

The graph "Net Current Expenditures Per Pupil" illustrates the sizable range in per pupil expenditures that exists even after the equalization impact of state grants. Per pupil expenditures have increased significantly since 1975-76, and there has been some decrease in the disparity in expenditures between high-spending and low-spending towns. However, the highest spending town continues to spend more than twice as much per pupil as the lowest-spending town, just as it did in 1978-79. In that year the town at the 95th percentile—the 9th highest-spending town—spent 81 percent more than the 9th lowest-spending town at the 5th percentile. In 1985-86, the per pupil spending of the 95th percentile town exceeded that of the 5th percentile town by 60 percent.

Studies have shown that about two-thirds of the existing disparity in learning opportunities can be attributed directly to the differences in teacher salaries and pupil/staff ratios among school districts.



*Net current expenditures per pupil include expenses per pupil for daily operation of the school program but do not include transportation, capital outlay, debt service expenses and tuition received from nonresident pupils

**Preliminary Data

Source: CT Department of Education

Teachers' Salary Aid

The 1986 legislature passed and Governor O'Neill signed into law the Education Enhancement Act, which greatly strengthens standards for teacher certification and provides over the next three years substantial amounts of aid to districts that voluntarily increase their minimum salaries to new recommended minimum levels and also reopen their teachers' salary contracts to negotiate new salary increases for all teachers. Eligibility for aid under this bill is based on the difference between present salaries in each district and a "model" schedule based on the recommendations of the Governor's Commission on Equity and Excellence in Education, and on district wealth. However, districts need not adopt schedules based on the model schedule in order to qualify for aid. If districts choose to increase salaries in accordance with their eligibility for this incentive aid, they will receive some $65 million of additional aid in 1986-87, $111 million in 1987-88, and $164 million in 1988-89.

This aid will help achieve two goals: provide salary levels adequate to attract and retain high quality teachers, and help bring about a more equitable distribution of teachers and teaching talent among school districts. It will also help achieve the board's goal of 50-50 state/local shares of school district spending (exclusive of federal dollars).

It is hoped that school districts will take full advantage of the substantial aid available under this program for increasing minimum salaries, increasing the salaries of all teachers, and increasing teacher/pupil ratios in the districts that presently have the lowest ratios. Such actions, if carried out, will provide real improvements toward providing not only for a better future supply of high quality teachers, but also for a more equitable distribution of teaching talent among Connecticut schools.

Future Improvements In Equity

As is shown in the graph "Net Current Expenditures Per Pupil," there has been little change in the percentage of disparity in spending among high- and low-spending school districts since the adoption of the GTB formula in 1979.

There has, however, been some reduction in tax rate disparities. As shown in the table "School Tax Rates," the ratio of disparity between the 95th percentile and 5th percentile towns has decreased by 17.4 percent between 1979-80 and 1984-85. However, the disparity, while less, is still large. More progress is needed not only on this indicator but also in greater equality of teacher/pupil ratios, as shown in the table "Teacher/Student Ratios."

School Tax Rates*
(in Mills)

Range in School Tax Rates	1979-80	1984-85	% Change 1980-1985
High Town	52.49	43.18	-17.7
95th Percentile	39.49	33.51	-15.1
Mean Town	25.54	23.06	- 9.7
5th Percentile	10.74	11.03	+ 2.7
Low Town	6.08	5.86	- 3.6
Disparity Measures			
95:5 Ratio	3.68	3.04	-17.4
High:Low Ratio	8.63	7.37	-14.6

*As calculated for GTB formula

Source: CT Department of Education

The Educational Equity Study Committee was established by law to advise the State Board of Education on matters relating to school finance equity and equality of educational opportunity. Study and planning are going forward during 1986-87 to develop a proposal to make it possible for poorer school districts to spend the same amount per pupil as wealthier districts with a similar tax effort. This proposal will be timed to dovetail with the three years of aid scheduled under the provisions of the Education Enhancement Act. The goal is substantial reductions in disparities in educational resources among school districts. The formula may be accompanied by firmer requirements as to minimum levels of expenditures or services to be purchased with the state funds. We are hopeful these goals can be achieved while simplifying the formulas and at a cost within the board's goal of a 50 percent state share of the nonfederal expenditures of local school districts.

A rough indication of the still-existing problem can be obtained from the graph "Tax Effort to Spend at State Average." This shows the average local tax effort that was required in 1984-85 in school districts in each decile of wealth in order to spend at the state average expenditure per pupil.

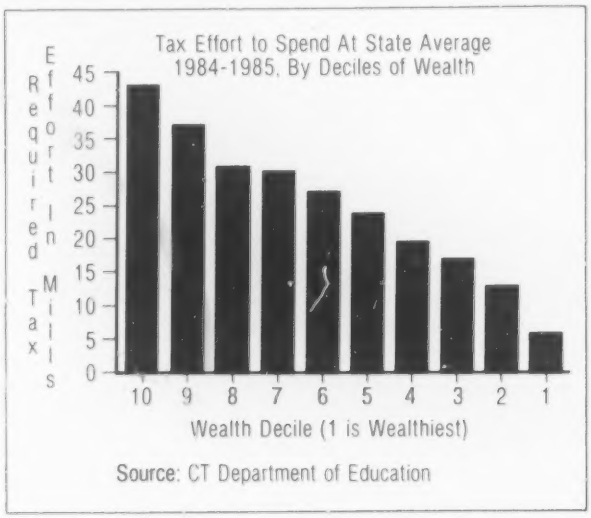
The graph shows that in the poorest tenth of school districts, an average tax effort of 43 mills would have been required in order to budget, including state aid, at the state average expenditure per pupil. The wealthiest tenth needed only an average tax effort of about 6 mills. Average rates for the districts in between varied according to their wealth, as shown.

Teacher/Student Ratios*
1985-86

	Per 1000 Pupils	Percent of Lowest
Lowest	59.60	100.0
5th Percentile	65.60	110.1
25th Percentile	71.43	119.8
50th Percentile	76.15	127.8
75th Percentile	81.60	136.9
95th Percentile	91.68	153.8
Highest	101.80	170.8
95th, percent of 5th	139.76%	

*Excludes administrators, support staff, and special education teachers.

Source: CT Department of Education



Source: CT Department of Education

Accomplishment of the Board of Education's goal of full fiscal equity requires that any school district should be able to support an average level of expenditure with a similar local tax effort to that required of all but the wealthiest districts. The year 1989-90 represents an important target for achievement of the goal through new or revised formulas. The Education Enhancement Act will in 1986-87, 1987-88 and 1988-89 pay out increasing amounts of aid in excess of that under the other formulas. This aid will terminate in 1988-89 when up to $163.8 million of such aid will be paid, a figure which represents an increase of 36 percent over the $451.6 million of GTB aid to be paid in 1986-87. Upon expiration of the Education Enhancement Act aid, this amount ($163.8 million), plus the additional amount required to reach the 50-50 goal, will be available to fund the new and improved finance formula expected to be in effect in 1989-90.

Indicators of Success

In *Design for Excellence, Connecticut's Comprehensive Plan for Elementary, Secondary, Vocational, Career and Adult Education*, the State Board of Education established seven goals to be pursued by the Department of Education and Statewide Educational Goals for Students for the 1986 to 1990 period. Within each goal area the board developed a set of indicators to measure progress in meeting the plan's goals.

The indicators are reliable and valid statistics which are measured over time, are easily understood and generally sensitive to policy direction. A statistic becomes an indicator if, in a policy context, it provides useful information about the health of Connecticut's educational system.

The best and most recent data available to the Department of Education in the fall of 1985 form the "baseline" against which change can be measured. The difference between the baseline and the most recent statistics provides information about progress on each indicator, and thus about the board's success in meeting its goals.

The indicators for State Board of Education Goals I-VI and for the Statewide Educational Goals for Students specify a desired direction of change—for example, an increase in state funds for adult education or a decrease in per pupil expenditure disparity among school districts. The indicators for Goal VII, "To Report on the Condition of Education," do not specify direction but rather provide the context in which the success of the other indicators can be evaluated.

To represent change graphically, we have developed a set of symbols to show the trend or status of each indicator. These are displayed in the box below.

⬆	Change is in the desired direction.
⬇	Change is counter to the desired direction.
⟷	There is little change.
▬	Baseline data. No comparable data were available before 1985-86.
⊘	No data indicating change are available.

The symbols represent change relative to the baseline data reported in the *Comprehensive Plan for Elementary, Secondary, Vocational, Career and Adult Education 1986-1990: The 1985-86 Action Plan.* Where this change is markedly different from a longer range pattern, the difference will be noted in the commentary.

The page number refers to the place in this document where the indicator is presented more fully. (N/A—not applicable—indicates that there is no additional discussion of the indicator elsewhere in the text.) There the indicator is discussed in the context of the state's people and schools, staff, student achievements, programs and finances.

Goal I: To Ensure Equity for All Children

Progress	Indicators of Success	Commentary	Page
⬆	An increase in the state share of support for public education	The state share of the cost of public elementary and secondary education was 37.7 percent in 1983-84, rose to 39 percent in 1984-85 and is estimated to be 39.7 percent in 1985-86.	36-37
⟷	A decrease in the disparity among districts of elementary and secondary staffing ratios	Between 1984-85 and 1985-86 the disparity in staffing ratios between the 8th and 157th ranked district rose slightly from 39 to 40 percent.	39
⬆	A decrease in per pupil expenditure disparity among school districts	In 1985-86 there was a difference of 60 percent between the 95th and 5th percentile district ranked on expenditures per pupil. In 1984-85 this difference was 70 percent.	38
▬	A decrease in the disparity among districts in starting and mid-career salaries	In 1985-86, there was a 77 percent disparity between the low starting salary of $11,497 and the high of $20,322. The disparity in mid-career salaries was 85 percent; master's degree maximum salaries ranged from $20,100 to $37,062.	11

Progress	Indicators of Success	Commentary	Page
⟷	A decrease in the disparity among the state's subgroups of students (race/ethnicity, sex, school district, parental income and similar subgroups) in participation in educational programs and educational outcomes	Several indicators are used to assess the disparity among the state's subgroups of students. The gaps in combined SAT scores between white and black and white and Puerto Rican students narrowed in 1985-86 to the smallest differences ever as the black and Puerto Rican averages increased and the average for white students decreased. Males averaged 7 points higher on the verbal SAT in 1985-86, one point less than the prior year. Males averaged 48 points higher on the mathematical SAT, 3 points more than the 1984-85 baseline level and slightly above the average difference over the past ten years. In 1985, 68.8 percent of white compared to 53.4 percent of minorities pursued educational activities after high school. The 15.4 percentage point difference between the two groups is 0.9 percentage points wider than the 1984 baseline difference. The gap between the percentage of white and minority students attending four-year colleges widened in 1985 as the percentage of whites increased 2.1 points to 48.9 percent and the percentage of minorities fell 0.3 points to 26.7 percent. The difference in graduation rates among whites (82.5%), blacks (61.7%) and Hispanics (46.2%) narrowed slightly between 1984 and 1985, as the black graduation rate increased by 0.7 percentage points, the Hispanic rate increased by 0.3 percentage points, while the rate for whites increased only 0.1 percentage points.	21,23 24

Goal II: To Improve the Effectiveness of Teachers and Teaching

Progress	Indicators of Success	Commentary	Page
—	An increase in teachers' starting and mid-career salaries to levels competitive with other occupations requiring similar training	Teachers' 1985-86 median starting and mid-career (master's maximum) salaries lagged behind the starting and mid-career salaries of selected state positions requiring similar education. The median starting salary of $15,455 was 22.2 percent below the average starting salaries paid to Social Work Trainees, Staff Nurses, Computer Programmer Interns, Engineer Trainees and Accounting Trainees in state service. Teachers' median salary at the top step of the master's degree schedule, $27,986, was 12.4 percent below the top step salaries of state employees in the positions of Accountant II, Civil Engineer, Data Processing Systems Analyst I, Librarian II, Personnel Officer II, and Social Worker.	12
—	An increase in the percent of prospective teachers passing the CONNCEPT examinations	In the first year of the administration of the CONNCEPT, 66.5% of prospective teachers passed or received waivers for high SAT scores.	15
—	An increase in the SAT scores of those entering teacher preparation programs in Connecticut	1985-86 was also the first year for which data on the SAT scores of those entering teacher preparation programs were collected. Although no average combine SAT score was calculated, it was determined that 28.7 percent had combined SAT scores below 800, 47.6 percent were in the 800 to 999 range, and 23.7 percent scored 1000 and above.	15
↑	An increase in state funds for professional development	State funds for professional development totaled $1.5 million in fiscal 1986, an increase of one million dollars over the baseline expenditure.	13

Goal III: To Improve Skills For Future Employment

Progress	Indicators of Success	Commentary	Page
	A decrease in the unemployment rate of high school graduates relative to the state rate	In the past year the civilian unemployment rate of graduates of the local and regional public schools and the regional vocational-technical schools declined while both the statewide and youth 16-19 unemployment rates increased. The unemployment rate for 1985 graduates of the regional vocational-technical schools, 3.5 percent, was below the statewide rate of 4.9 percent, while the rate for the graduates of the local and regional public schools, 8.5 percent, was above the state rate.	28
	An increase in the percentage of students completing vocational-technical programs	The percentage of students who were expected to complete regional vocational-technical programs in 1985 fell slightly to 71.1 percent from the 1984 high of 71.8 percent. Even though the 1985 percentage is below the baseline level of 1984, it is well above the 1980 completion rate of 64.4 percent.	23
	An increase in the performance of students on CAEP/ Vocational Education	No assessment of students on CAEP/Vocational Education was done this year. The next assessment (Industrial Arts) will take place in 1986-87.	N/A

Goal IV: To Improve and Expand Adult Education Programs

Progress	Indicators of Success	Commentary	Page
	An increase in the percentage of students in adult basic education programs who pass the GED test	The baseline percentage of students passing the GED who were prepared in adult basic education programs was established at 76 percent in 1985-86.	23
	An increase in the number of adults in adult basic education programs	The number of adults in adult basic education programs increased from 43,383 in 1984-85 to 47,053 in 1985-86.	29
	An increase in the number of adults from underserved populations in adult basic education programs	The number of adults from underserved populations increased between 1984-85 and 1985-86. The number of adults 16-24 rose by 3,836 to 19,271; the number of blacks increased by 749 to 9,604; the number of Hispanics increased by 298 to 12,600; and the number of females increased by 5,402 to 27,103. The numbers of single parents and people receiving Aid for Dependent Children are unknown.	29
	An increase in the state funds for adult education	State funds for mandated adult education programs increased 75 percent from $2.0 million in 1984-85 to $3.43 million in 1985-86.	N/A

Goal V: To Improve and Expand Early Childhood Programs

Progress	Indicators of Success	Commentary	Page
	An increase in the number of districts offering extended-day kindergarten	In the fall of 1985, 23 school districts offered all-day or extended-day kindergarten programs to at least some children compared to 17 districts the prior year and four in 1980-81.	26
	An increase in the percentage of children ages birth to three, and diagnosed as handicapped, who are provided a program or service	Because the number of children birth to three diagnosed as handicapped is unknown, calculation of the percentage of those served cannot be made presently. In 1985-86, however, 802 children were identified and served compared to 718 the previous year.	N/A
	An increase in the number of approved day-care facilities	The number of approved day-care facilities increased from 1,110 in 1985 to 1,145 in 1986. In that period the number of children enrolled increased by 6.9 percent to 50,215.	26
	An increase in the number of public school programs for four-year-olds	No data are currently available on the number of public school programs for four-year-olds.	N/A
	An increase in the state funding for early childhood education programs	No data are currently available on the state funding for early childhood education programs.	N/A

Goal VI: To Improve the Quality of Curriculum and Instruction

Progress	Indicators of Success	Commentary	Page
	An increase in time allocated to instruction	In 1985-86 districts reported an average of 953 hours of instructional time in the elementary grades, 952 hours in intermediate grades, 951 hours in middle or junior high schools, and 947 hours for senior high schools. These represented increases of 2, 3, 4, and 4 hours, respectively, over the prior year.	N/A
	An increase in the number of credits taken by graduating seniors	The number of credits taken by graduating seniors in the class of 1984 averaged 4.1 in English, 3.1 in mathematics, 2.9 in social studies, 2.6 in science, 1.1 in the arts, 1.9 in vocational education, 1.4 in physical education, and 1.6 in foreign languages. The next data collection is scheduled for the class of 1988.	N/A
	An increase in the number of gifted and talented programs at elementary, intermediate and high school levels	The number of gifted and talented programs increased at every level in 1985. In that year, 156 school districts offered at least one such program compared to 139 the prior year. The number of programs increased by 8 at the elementary level and by 4 each at the middle/junior high and high school levels.	33

Goal VI, continued

Goal VI: To Improve the Quality of Curriculum and Instruction, continued

Progress	Indicators of Success	Commentary	Page
	An increase in the percentage of students taking courses eligible for college credits	In the 1983-84 school year, there were 8,613 enrollments in all college-level courses (Advanced Placement, University of Connecticut and others) offered for credit in comprehensive public high schools. College-level courses were available at all but 21 comprehensive high schools. At present, there is no way to determine the percentage of students enrolled in these courses because of the number of students enrolled in more than one course. This percentage will be determined for the 1985-86 school year.	22
	A decrease in the percentage of students requiring remedial assistance	On the initial administration of the Connecticut Mastery Test in grade 4, 20 percent of the students fell below the remedial standard in mathematics, 19 percent in writing and 32 percent in reading. A total of 11,539 students, 38.6 percent of all fourth graders, were below the state standards on at least one test. Data for grades 6 and 8 will be available in 1986-87.	18

Goal VII: To Report on the Condition of Education

Status	Indicators of Change	Commentary	Page
	Per pupil expenditures	The 1985-86 mean net current expenditure per pupil increased 8.5 percent in the past year to an estimated $3,788. Over the past five years this expenditure increased at an average annual rate of 10.7 percent.	38
	Class size, staffing ratios	School staffing ratios have improved steadily over the past decade. In 1985, there were 70.1 teachers per 1000 students, up from 68.8 in 1984 and 65.0 five years ago. The number of support staff per 1000 students increased to 5.7 percent, up 0.1 since last year and 0.5 percentage points over five years.	11
	Percentage of poor (AFDC) students	The percentage of poor students has declined slightly from 11.5 percent in 1983-84 to 11.0 percent in 1985-86.	7
	Average teacher salary	In 1985-86, the mean salary of teachers and support staff rose to $27,035, an increase of 8.3 percent over the prior year. Over the past five years the average salary has increased at an average annual rate of 8.9 percent. The 1985-86 average salary is 13th ranked nationally, according to the Connecticut Education Association.	11
	Percentage of minority students	Minority students constituted 21.7 percent of the public school enrollment in 1985, compared to 20.3 percent last year and 18.0 percent in 1980.	8
	Percentage of students attending nonpublic schools	The 76,661 Connecticut residents enrolled in nonpublic schools in 1985 constituted 13.9 percent of the total enrollment, a figure which has remained relatively constant over the past five years. The number of Connecticut residents attending private schools out of state is not known.	7

Goal VII: To Report on the Condition of Education, continued

Status	Indicators of Change	Commentary	Page
⟷	Number of limited English-proficient students	Of the 45,679 public school students who come from homes where English is not the dominant language, 21,319 (46.7%) have been determined to be English proficient, 10,672 (23.4%) have been determined not to be proficient in English, and 13,685 (29.9%) have not had their English proficiency determined by the state.	31-32
↑	Percentage of female and minority administrators	The percentages of women and minorities holding administrative positions has increased consistently over the past five years. Women now constitute 21.4 percent, and minorities 6.9 percent, of all administrators. Five years ago the percentages were 14.2 and about 5.8, respectively.	13
↑	Percentage of female and minority students in vocational-technical schools	The percentages of female and minority students in vocational-technical schools, likewise, have risen in the five-year period. Minority students now comprise 20 percent of all vocational-technical students compared to 14 percent five years ago. Females were 26 percent of the students in 1985 versus 21 percent in 1980.	27
↑	Percentage of male and female students completing nontraditional vocational programs	The percentage of male and female students completing nontraditional vocational programs increased in 1985. (A vocational program that is nontraditional for one sex was defined in 1981 as one in which at least 80 percent of the participants were of the opposite sex.) In 1985, females were 5.3 percent of the completers of traditionally male programs; males were 23.6 percent of the completers of the traditionally female programs, up from 1.9 and 15.9, in 1980.	27
—	Percentage of scholarship loan recipients (ELEET, Shortage) who enter teaching	Of the 75 students who had exited the Teacher Incentive Loan Program by October 1985, 39 (52%) were teaching in Connecticut public schools and 5 (6.7%) were teaching in nonpublic schools.	16
↑	Average SAT scores of students intending to study education	The average combined SAT score of those intending to study education rose by 12 points to 840 in 1985-86, continuing an increase that began in 1982-83. Although the average score of prospective education majors increased faster than the state average, it still lags 74 points.	15
↑	The supply and demand for teachers including the percentage of college-bound students intending to study education	In 1985-86 there was a supply of teachers to meet demand. A total of 3,178 public school positions were filled by 1,847 returning experienced teachers and 1,331 teachers with no prior teaching experience in Connecticut. There were 646 new full- and part-time positions created. In 1985-86, 3,842 people were awarded initial provisional certificates, about 500 more than the prior year and almost 1,000 more than the 1982-83 low. However, the number of certificates awarded to current graduates from Connecticut's colleges and universities continued a downward trend. Only 1 in 4 certified in 1985-86 obtained employment in the public schools in September 1986. The number of education degrees awarded by Connecticut colleges and universities increased (by 69) for the first time in over a decade, but was still significantly (58%) below the count of ten years ago. High school students from the class of 1986 intending to study education also increased significantly for the first time in a decade. An estimated 1,535 seniors in 1985-86 indicated such an intent compared to 1,180 the prior year.	14-15

Goal VII: continued

Goal VII: To Report on the Condition of Education, continued

Status	Indicators of Change	Commentary	Page
▬	The number of handicapped students placed into competitive employment	In 1985-86, 1,805 of the 2,184 clients rehabilitated in programs supported by the Division of Rehabilitation Services were placed into competitive employment.	34
⬆	The proportion of vocational education program completers who obtain a full-time job related to their training, pursue additional education, or enter the military	In 1985, 70.9 percent of all vocational education program completers either obtained a full-time job related to their training (24.3%); pursued additional education (43.5%); or entered the military (3.1%). This figure is up from 68.9 the previous year.	28
⊘	The number of handicapped students graduating high school and placed into postsecondary training	No data are available on the number of handicapped students graduating high school who are placed in postsecondary training. Data will be available for the 1986-87 school year.	N/A
▬	The number of handicapped students in vocational education programs	19,457 handicapped students, constituting 12 percent of the total, were enrolled in vocational programs in the local public school districts in 1985-86. These data reestablish a baseline for this indicator, as the prior data were found to be significantly underreported.	33
⬆	Percentage of public high school students enrolled in the vocational-technical schools	The percentage of public high school students enrolled in the vocational-technical schools in 1985 was 7.8. This was 0.1 percentage points above the prior year and 2.2 percentage points above the level of five years ago.	N/A
⟷	The average score on the general educational development (GED) tests	In 1985, the average scores on the writing skills, social studies, reading, and mathematics sections of the GED test declined while the average increased slightly on the science section. The five components of the GED totaled 245.1 in 1985 compared to 247.3 in 1984.	N/A

Statewide Educational Goals for Students

Progress	Indicators of Success	Commentary	Page
⬆	An increase in school attendance of students	The average daily attendance of 93.2 percent of the enrollment in 1985-86 slipped slightly from the ten-year high set last year, but remained above the levels of five (92.9%) and ten (92.7%) years ago.	19
⟷	An increase in the proportion of ninth graders who complete high school	The graduation rate of 77.9 percent has remained essentially unchanged for the past three years. In the past ten years the graduation rate has been as low as 74.7 percent (1980) and as high as 78.9 percent (1977).	22
⊘	An increase in student-reported time spent on homework	No data were collected on student-reported time spent on homework in 1985-86. Eighth and eleventh grade students reported spending an average of 1.1 hours per day on all homework assignments in 1983-84.	N/A

Statewide Educational Goals for Students, continued

Progress	Indicators of Success	Commentary	Page
	An increase in performance on Connecticut Mastery Tests at grade four, six, and eight over initial year results	The initial administration of the Connecticut Mastery Tests was in 1985 for fourth graders. These students mastered an average of 19.3 of 25 objectives in mathematics, and 6.1 of 9 objectives in language arts. They scored 4.8 (out of a possible 8) on the writing sample and 43 (of a possible 99) on the Degrees of Reading Power. Initial tests in grades 6 and 8 will be administered in 1986-87.	18
	An increase in the percentage of students in adult education programs who pass the GED test	A baseline passing rate of 76 percent on the GED was established in 1985 for those students enrolled in adult basic education programs.	23
	An increase in the achievement gains of students in Chapter 1, Educational Evaluation and Remedial Assistance (EERA) including bilingual, migrant and similar programs	No new data on the achievement of students in compensatory programs were added to the baseline data in 1985. Prior evaluations of the Chapter 1 and migrant programs showed evidence of small but not meaningful educational growth.	N/A
	An increase in the performance of students on statewide tests of knowledge of science, mathematics, social studies, the arts, literature, languages and thinking skills	No new data were available in 1985 to assess the performance of students on statewide tests of science, mathematics, social studies, the arts, literature, languages, and thinking skills.	N/A
	An increase in the Connecticut SAT scores at a rate greater than or equal to the national rate	In the past year the verbal SAT score remained unchanged in both Connecticut and the nation. The mathematical score in Connecticut declined one point in that period, while the national average remained unchanged. Over a five-year span, both verbal and mathematical averages in Connecticut have increased more than the national averages.	20-21
	An increase in the Connecticut average on the Test of Standard Written English at a rate greater than or equal to the national rate	In the past year the Connecticut average on the Test of Standard Written English declined 0.6 points while the national average declined by 0.1 points. Over the past five years the Connecticut average did not keep pace with the growth nationally. The 1985 Connecticut mean of 42.8 was 0.2 points above the national average.	21
	An increase in scores of students on Advanced Placement tests	In 1985-86, 75.7 percent of the exams taken by 2,529 public school students who took Advanced Placement Tests had scores of three or better compared to the 75.4 percent of the 2,315 students in the baseline year of 1984-85. (Most colleges which grant credit for AP work require scores of 3 or more.) Connecticut public school students' pass rates were almost nine percentage points higher than the average of public school students in the nation in 1985-86.	22
	An increase in the percentage of students who are National Merit Commended Scholars	The 1987 National Merit Scholarship program commended 1,073 students or 2.4 percent of Connecticut's public and nonpublic school eleventh graders, an increase from the 2.1 percent commended the prior year.	20

Goals for Students, continued

Statewide Educational Goals for Students, continued

Progress	Indicators of Success	Commentary	Page
⬆	An increase in the proportion of secondary school graduates in civilian or military employment, postsecondary education or training	In 1985, 96.6 percent of public school graduates and 96.2 percent of vocational-technical school graduates were in civilian or military employment or postsecondary education or training programs. Both are increases over the baseline levels of 95.5 and 95.6 percent, respectively, set last year.	23-24
⊘	An increase in the percentage of students demonstrating understanding of the principles of democratic societies and the American legal system on the Connecticut Assessment of Educational Progress	No new data were gathered in 1985-86 on the percentage of students demonstrating understanding of the principles of democratic societies and the American legal system.	N/A

7 Meeting The Challenge

In the preceding sections of this annual report, the staff of the Department of Education—using information supplied by the local school districts—has tried to present an accurate picture of the condition of education in Connecticut during 1985-86. Education, however, is a dynamic and constantly changing enterprise. A look at 1986 is a look at the challenges to be met in the future. It provides the clues to the actions that will be necessary to achieve the goals and objectives of the Board of Education and the related initiatives of the commissioner to improve the quality of instruction for Connecticut's students during the coming years.

The Board of Education and the Department of Education staff, having reviewed the data presented here, will continue to be proactive in pursuit of equity and excellence in the public schools. This goal—equal opportunity for every student to receive a quality education—is the motivation for all the board's policies and the department's activities. These efforts will continue until the disparities in the quality of learning experiences and the availability to all citizens of comparable educational programs are substantially diminished.

Efforts will continue to raise standards and expectations for both teachers and students. Activities in progress and proposals under consideration place heavy emphasis on teachers—their preparation and competence, their recruitment and professional development, their credentials and salaries—and on improving teacher-pupil staff ratios. Earlier and better childhood education (to give each child an early start) and mastery testing in 4th, 6th and 8th grades (to monitor learning progress during the early years) are intended to ensure that every student will have the foundation to perform adequately through the elementary grades and to achieve at the level required to complete high school. These and other efforts are described below.

Improving Student Achievement

The goal of improving student achievement requires strong commitment to a broad range of demanding tasks: enriching and expanding instructional programs; establishing standards and evaluating progress toward reaching them; and ensuring the best possible learning situation for all students. Building on the successes already noted, the Department of Education will continue to seek educational excellence and equity through efforts such as these:

- Lifelong learning. Quality educational programs for young children are inextricably related to the goal of equity. Planning and implementation of two important initiatives in early childhood education will focus on the development of extended day kindergarten programs in communities throughout Connecticut, and provide support to families with handicapped or at-risk children from birth to age three. At the same time, programs for adult learners will continue to be a priority. Increased funding and expanded services will serve the growing number of adults enrolled each year in a variety of adult education programs, and will support the ongoing efforts of the Governor's Coalition for Literacy.

- **Mastery testing.** The full implementation of the mastery testing program in grades 4, 6 and 8—which includes the use of calculators on the grade 8 mathematics test—will begin to provide a more detailed picture of the language arts and mathematics skills Connecticut students have mastered at each grade level. Over a period of years, longitudinal data will demonstrate the progress students make toward achieving the mastery standards established by educators throughout the state.

- **Common Core of Learning.** Adopted by the board and published in 1987, the Common Core of Learning will be used by educators, employers and others as a guide in establishing expectations of and programs for Connecticut's high school graduates. Working together, local school districts and the Department of Education will develop model strategies for implementing and achieving the Common Core. The department also will design a means of periodically assessing student achievement of the Common Core, while representatives of higher education and business will be encouraged to use it in appropriate ways.

- **Health and well-being.** Students must be in school—healthy, attentive, and able to participate in programs as fully as possible—in order to achieve as learners and as citizens. Their physical health and personal well-being, now and in the future, must be recognized and acted upon as priorities. Accordingly, the State Department of Education will focus on developing an improved health and safety curriculum (including substance abuse prevention education) for students in kindergarten through grade 12. This effort will include curriculum development and teacher training, as well as a survey of substance abuse prevention education programs already in place in the state's school districts. Working with the State Department of Health Services, the department will also develop and distribute curriculum information on acquired immunodeficiency syndrome (AIDS), one of the most serious health concerns facing Connecticut and the nation.

  In addition, research, planning and implementation of programs to reduce the dropout rate among Connecticut's high school students will be emphasized in coming years. The focus will be on school districts whose students face the greatest difficulties in this regard.

- **Racial equity.** The State Department of Education will continue to carry out a number of activities addressing the State Board of Education's commitment to racial equity in the public schools. Future actions will build on three significant efforts from 1985-86: the Report of the Citizens Advisory Committee to Study Racial Imbalance (summer 1985); the Report on Racial Balance and Quality Education in Connecticut Public Schools (February 1986); and Public Act 86-78. This legislation provides for the development of alternative standards and criteria for school districts with minority enrollments of 70 percent or more.

  The State Department of Education also recognizes the importance of positive role models for all students throughout their school experience. As a result, a major focus of department activities will be recruitment of minority staff for the public schools.

Teacher Salaries and Qualifications

While some "fine tuning" of the Education Enhancement Act remains to be accomplished, adjustments in the legislation will not change the two key areas it addresses: teacher salaries and teacher qualifications. These inseparable issues have been priorities for some time; the Education Enhancement Act will allow us to act on these issues aggressively and in concert.

- **Teacher salaries.** In the course of this three-year grant program, more than $300 million in state funds will be provided to towns in order to establish a minimum teacher salary of $20,000, enhance salaries of experienced teachers and improve teacher-pupil ratios. The salary schedules negotiated by teachers and school boards using these funds are expected to be among the best in the nation.

- **The certification continuum.** Pursuant to the provisions of the Education Enhancement Act, the State Department of Education will develop detailed regulations relating to the newly enacted restructuring of the certification system. The new structure includes a three-tiered continuum of certificates (the initial, provisional and professional) and alternative criteria for those who wish to enter the teaching profession from other than a formal teacher preparation program. Test systems for new certification candidates are being implemented: CONNCEPT, the essential skills exam, is fully operational and subject matter examinations are in the developmental phase. The department is currently upgrading its computer capacity in order to meet the significant administrative demands of implementing the new system.

  Full implementation of the Beginning Teacher Support and Assessment Program will be a key element in the certification process. In this program, a mentor teacher and an assessment team will be assigned to each beginning teacher—a teacher with a one-year initial certificate—to provide support, ease the transition into teaching, and counsel the individual in a different career direction if the potential for effective classroom teaching is not present. The program will provide funds for training and compensating mentor teachers and assessment team members. The Cooperating Teacher program, which offers training and stipends to those teachers willing to work with student teachers as they complete their preparation, will be expanded in its second pilot year.

- **Professional development.** The Education Enhancement Act establishes a new entitlement grant to assist

school districts in implementing their five-year mandated local professional development plans. Districts were required to submit their plans for approval to the State Department of Education by April 1, 1986; an estimated $2.5 million will be available in 1987-88 to help districts implement these plans.

The three-year-old Institute for Teaching and Learning will continue to sponsor professional development activities—during the summer and the school year—for approximately 5,000 teachers and other certified staff in 1987. Offerings for school administrators will be expanded, and topics in need of special attention—such as substance abuse prevention education—will be addressed. As in the past, the Institute will also sponsor several statewide conferences; planned topics include early childhood education, teacher evaluation and instructional technology.

The Institute for Teaching and Learning and locally offered activities are both avenues through which teachers may earn the nine continuing education units required for renewal of the five-year professional certificate, the third and final step on the certification continuum. An appropriate higher education program or individualized training program are examples of other opportunities for earning the necessary continuing education units.

Looking Ahead

Together, the State Board of Education, the Governor and the General Assembly have set an ambitious agenda for the future of education in Connecticut. The goal of excellence and equity in education requires a serious commitment of human and financial resources on both the state and local levels. It can only be achieved by continuing the kind of cooperative effort already demonstrated by educators, policy makers and citizens throughout the state.

The bold initiatives of the Education Enhancement Act, together with the budget commitments the legislation requires, will ensure Connecticut's status as a nationally recognized leader in public education. However, in the matter of educating our citizens, true leadership is measured only by the personal achievements of the individuals we serve.

In the future, as we regularly evaluate the data that measure the indicators of success, let the record show consistent movement toward excellence and equity in education—and a finer quality of life for all of Connecticut's citizens.